

For Reference

NOT TO BE TAKEN FROM THIS ROOM

For Reference

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS





Digitized by the Internet Archive
in 2018 with funding from
University of Alberta Libraries

<https://archive.org/details/analysisofcalgar00mcfa>

thesis
1960
#28

THE UNIVERSITY OF ALBERTA

AN ANALYSIS OF THE CALGARY LAGGARD POLICY

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DIVISION OF EDUCATIONAL PSYCHOLOGY

by

ARTHUR GEORGE MCFAUL

EDMONTON, ALBERTA

APRIL 1960

ABSTRACT

Calgary's Laggard Policy is intended to rehabilitate lazy and indifferent students. If rehabilitation fails, exclusion follows.

It poses the following questions: (1) Do laggards improve? (2) What characteristics describe laggards? (3) Has the general achievement standard improved?

Analysis of covariance compares the regression of subsequent achievement scores on initial scores by matched samples of laggards and non-laggards. Tests of significance of difference compare: the laggard sample and the non-laggard population; Grade XII achievement in 1954 and 1959.

Laggard achievement improves but never equals that of non-laggards. Laggards are mainly older, male, of average intelligence, 'general' Grade XI students, of relatively high drop-out rate.

Grade XII achievement has improved since inception of the policy in 1954.

ACKNOWLEDGEMENTS

The writer wishes to acknowledge the helpful suggestions given by his advisor, Dr. R. S. MacArthur, and by the other members of his committee, Dr. G. M. Dunlop, and Dr. E. W. Buxton.

Appreciation is also expressed to the Calgary School Board Office, Principals W. Steckel, H. D. Cartwright, and G. W. Foster, and to Dr. C. Safran, Director of Guidance for Calgary Schools, for their cooperation in the preparation of this thesis.

CONTENTS

CHAPTER	PAGE
I. THE CALGARY LAGGARD POLICY	1
Administrative Action.	3
Implementation	7
Results of Policy.	10
General Problem of This Investigation.	13
Specific Problems.	14
II. RELATED LITERATURE	16
Probation.	16
The Probation Student.	21
Study Skills	22
Reading.	25
Personal and Social Factors.	26
Treatment for Probation Students	28
Exclusion.	32
Effects of Probation	33
Summary.	34
Footnotes to Chapter II.	36
III. DESIGN OF THE EXPERIMENT	43
Basic Assumptions.	43
Selection of the Students for Study.	44
The Laggard Student Sample	45
The Control Sample	46
Collection of the Data	47

CHAPTER	PAGE
Improvement of Laggards.	48
A Partial Description of Laggards.	53
Improvement in Achievement of the Student	
Population	58
Summary of Hypotheses.	59
IV. ANALYSIS	60
Improvement of Laggards.	60
Description of Laggards.	71
Improvement of Grade XII Scores.	78
V. SUMMARY OF FINDINGS, IMPLICATIONS AND RECOMMENDED	
RESEARCH.	80
Summary of Findings.	80
Implications	82
Recommended Research	84
BIBLIOGRAPHY.	85
APPENDIX A.	91
APPENDIX B.	92
APPENDIX C.	93
APPENDIX D.	98

LIST OF TABLES

TABLE	PAGE
I. Incidence of Exclusions under Provisions of the Calgary Laggard Policy 1955-1959 Inclusive. . .	11
II. Incidence of Warnings and Exclusions by Schools During the Year 1959.	12
III. Schools: Their Programs, Populations, and Laggards for 1959	46
IV. Sample Sizes of Laggards and Non-Laggards	49
V. Sample Sizes for Grade X and Grade XI Laggards, for Female and Male Laggards.	52
VI. Mean Achievement Scores for Laggards and Non- Laggards on the Initial and Subsequent Reports. . .	60
VII. Significance of Difference Between Mean Improve- ment Scores for Laggards and Non-Laggards . . .	62
VIII. Analysis of Variance of the Initial Achievement Scores for Laggards and Non-Laggards.	63
IX. Analysis of Variance of January Achievement Scores for Laggards and Non-Laggards.	63
X. Analysis of Variance of Final Achievement Scores for Laggards and Non-Laggards.	64
XI. Analysis of Variance of Initial and January Achieve- ment Scores for Laggards.	64
XII. Analysis of Variance of Initial and Final Achieve- ment Scores for Laggards.	65

TABLE

XIII.	Analysis of Covariance of January and Initial Achievement Scores for Laggards and Non-Laggards	66
XIV.	Significance of Difference Among Adjusted January Means.	66
XV.	Analysis of Covariance of Final and Initial Achievement Scores for Laggards and Non-Laggards	67
XVI.	Significance of Difference Among Adjusted Final Means.	68
XVII.	A Comparison of Improvement Scores for Female, Male, Grade X and Grade XI Laggards (Initial to January Report)	69
XVIII.	Analysis of Variance of Improvement Scores (Initial to January) of Female and Male Laggards, and Grade X and XI Laggards.	70
XIX.	Analysis of Sex Differences in the Classification of Laggards.	71
XX.	A Comparison of Sex Differences in the Classification of Laggards at Two Calgary High Schools .	72
XXI.	Analysis of the Variation of the Ages of Laggards from the Ages of the Total Population of Calgary Students	73
XXII.	Comparison of the Mean Intelligence Quotients of Laggards and the Calgary Student Population. .	74

TABLE

PAGE

XXIII.	Analysis of the Distribution of Laggard Students According to Program of Studies.	75
XXIV.	Analysis of Laggard Distribution by Grade. . . .	76
XXV.	Analysis of the School by School Distribution of Laggards for 1959	77
XXVI.	A Comparison of the Drop-out of Laggards and the General Student Population	77
XXVII.	A Comparison of the Percentage of Calgary Students Achieving Various Standings on Grade XII Departmental Examinations in 1954 and 1959	78

CHAPTER I

THE CALGARY LAGGARD POLICY

Education has a major and growing role to play in the evolution of our society. The school must prepare intelligent citizens to direct the moving forces of our day. It cannot escape this responsibility, for the survival and welfare of mankind may well depend on the kind of education our leaders receive.

Society takes upon itself the obligation to educate every boy and girl until they can assume their responsibilities in the world of labor and service to mankind. The people of this province have set as the foremost purpose of education the fullest realization of the personal potential of all youth, regardless of social or economic status. Alberta thus dedicates itself to the high purpose of providing high school education for all who can profit by it.

Since the end of the Second World War, the population of Calgary high schools has expanded at a tremendous rate. Moreover, the high birth rate, migration from Europe and other provinces in Canada, movement from rural to urban communities, the increased holding power of high schools, parental pressure, social pressure, increased physical and social activities of the school, family allowances, available scholarships--all have contributed to the swelling high school population. This huge

influx of students has seriously strained educational facilities in Calgary.

The Resistant or Lazy Student. This large group of students which society has placed in our secondary schools contains many who are resistant to the educative process. Some students will not apply themselves to school work; they neglect homework assignments and essays; they are indifferent to failing grades. Some educators have described them as uninterested, uncooperative, nonconforming, rebellious, hostile, insolent, disrespectful, class-cutters, and truants.

Despite all efforts of the school, these lazy, indifferent students do not appear able to adjust to the school situation and may disrupt the academic experiences of their fellow students. Unless checked, they act as a constant reminder to the others that it is possible to cut classes, insult teachers, ignore assignments, break rules, disrupt classes, and still obtain a certain number of credits.

Although the number of this type of student is small, they take up a disproportionate amount of the time and effort of teachers, counsellors, and administrators. They overburden the limited services out of proportion to the returns; even after counselling and curriculum adjustment, they appear unchanged. Since these students require more time than their share, all other students receive less; consequently

insufficient time, study and programming can be devoted to the more receptive.

I. ADMINISTRATIVE ACTION

Conscious of the bad effect the lazy student was having on the academic progress of the more serious ones, Calgary high school principals, in 1953, recommended to the Calgary School Board application of Sections 179 and 369 of the School Act. Section 179 grants the board the power to make regulations for the management of the school and to exclude from school students who are guilty of habitual neglect of duty. Section 369 grants this power to the principal and teacher and establishes the method by which such exclusion will take place.

The teacher may suspend a student guilty of habitual neglect of duty, and must report such suspension to the principal. The principal shall then prepare a written report of the suspension, setting forth all the circumstances, and shall send this report to the board, the superintendent, and the attendance officer. The board may then take such action as it deems necessary.

The Calgary School Board regulations state that it is the duty of the student to be diligent in the pursuit of his studies. Hence habitual neglect of duty on the part of the

student, in other words, 'failure to be diligent in the pursuit of his studies' becomes just cause for his exclusion from school.

Upon the recommendation of the high school principals, the Calgary School Board stated its policy in a special bulletin:

A high school student is entitled to education at public expense provided he puts forth a serious effort to profit from that education. In 1953 the per pupil cost for high school education in Calgary was \$320.63 and there was difficulty in finding accommodation for all who sought admission. The public cannot afford to provide such service to pupils who take an indifferent attitude toward their responsibility in providing a good return on this investment.

In implementing the above policy the following statements will apply:

1. Our concern is not so much with the pupils who try hard but are unable to succeed as with those who simply fail to put forth an effort.
2. Such pupils can be identified rather early and should be referred to guidance counsellors for consideration. It is expected that they should be known by the first reporting period, that is, on or before November 15th.
3. Parents should be made aware of the problem as soon as possible after this date, either by letter or personal interview.
4. The principal should advise the parent on or before January 10th that the pupil will not be permitted to remain in school after January 31st unless his effort improves.
5. On January 31st a letter shall go from the principal to the parent advising of the enforced withdrawal of the pupil.
6. At the same time the principal shall send to the Superintendent a list of all pupils who were asked

to withdraw, together with date pertinent to their withdrawal.

7. All border-line cases given the privilege of continuing after January 31st shall be considered as probationary students subject to later enforced withdrawal if there is a falling off of effort.¹

This policy was adopted and first applied in September, 1954. Since then minor amendments have been made. Points 4, 5, and 7 have been amended to read:

4. The principal should advise the parent on or before January 15th that the pupil will not be permitted to remain in school after February 14th unless his effort has improved.
5. On February 10th a letter shall go from the principal to the parent advising of the enforced withdrawal of the pupil as of February 14th.
7. All border-line cases given the privilege of continuing after February 14th shall be considered as probationary students subject to later enforced withdrawal if there is a falling off of effort.

Changes in dates provide the staff with more time for evaluation and consultation with respect to possible exclusions. The above-noted dates may, of course, change from year to year. The January report card usually is circulated among the staff about January 24th and sent home on the Friday preceding January 31st. Exclusion lists are prepared between January 31st and February 10th. Letters enforcing withdrawal are posted by registered mail not later than Monday asking

¹R. Warren, Superintendent of Schools Calgary, Special Bulletin to High School Students, November 6, 1956.

students to withdraw by Friday. In these letters, the principal is required to point out that requests for hearing of appeals should reach the Superintendent's office not later than the following Monday.

In February of 1959, Calgary administrators reviewed the plan and concluded that it had operated successfully. They emphasized that it was concerned, not with the students who try hard and fail, but with those who have ability but fail to put forth an effort. When a student is reported to the School Board, it must be shown clearly that, in the considered opinion of the staff, he has failed to put forth the required effort. In doubtful cases, the verdict will favor the student. Moreover, since the legal age for leaving school is fifteen, and since students under fifteen have difficulty in obtaining employment, any case involving a student under fifteen should receive most careful consideration before it is submitted to the board.

There appears to be no defensible basis for the exclusion of students who are passing their subjects. The only basis for exclusion, then, is failure by a student who is capable of passing grades. Principals are reminded to be alert to doubtful cases and to be ready, if necessary, to defend any action under the provisions of this policy.

Certain features of the Calgary Policy require emphasis. Failing grades in themselves do not constitute grounds for

exclusion but are used only as a device for screening. Guidance must be offered to these students, each case being reviewed individually, with the parents brought into the picture. Exclusion should not be based on one reporting period only but should follow on persistent laggardness through successive reporting periods, after all possible measures have been taken by the staff to rehabilitate the student.

II. IMPLEMENTATION

Although the policy has been established by the board and exclusion is based on action by the superintendent, the actual techniques used in implementing the policy are the province of the individual principal. Each school has established different methods which have become more diversified with experience. Staff associated with implementation of the policy have been forced to consider the effects of the policy upon students and teachers. Better methods for screening laggard students have been developed. Letters have become varied and more sophisticated. Students themselves have adopted attitudes concerning the policy.

Most schools use a capacity-achievement expectancy chart,² a device developed by Dr. Safran, Director of Guidance of Calgary schools, to initially screen the students and

²Appendix A

determine the degree of laggardness. This chart shows, for any intelligence quotient, the expected achievement for a student. It is suggested that any student whose achievement T-score is one standard deviation below his intelligence T-score be considered for probation. Any student whose achievement T-score is one and one-half standard deviations below his intelligence T-score or whose achievement is less than .25 is considered a laggard. Thus, a student whose expected average was 60 per cent and whose actual average was 43 per cent would be placed on probation, while, if his actual average was 35 per cent, he would be considered a laggard. This chart is used only as an initial screening device. An additional screen is the number of D's on a report card. Usually three D's on a report card is considered cause for classification. Not all students who fall into these categories are classified as laggards; on the other hand some who rate higher on tests are so classified. Students with low intelligence who are really trying but still fail may appear on the initial laggard list.

The guidance personnel are entrusted with preparation of laggard lists for the various schools. Their approach to the problem, although objective, is naturally unique to the individual counsellor. They attempt to discover those students who have problems, such as broken homes, low socio-economic status, emotional problems, inter-family and peer relation-

ships, traumatic experiences, difficulty in adjustment, low aspirations, poor reading and study habits. When the student is told that his progress is unsatisfactory, he is invited to seek help from the counsellor. In selection of laggards, the guidance personnel are beset with doubts. How accurate are the intelligence tests? How accurate and reliable are the measures of a pupil's achievement? How may the complex factors of a student's behavior be understood? How quickly or effectively may therapy be applied? How may time be apportioned to all groups of students fairly?

The list³ which the counsellor prepares is submitted to the principal. Following conferences between principal and guidance personnel the list is approved by the principal. A letter is then sent to the parents (approximately November 15th) informing them that their child has been placed on the probation list. The parents are encouraged to discuss the situation with the counsellor and to cooperate with the school by encouraging their child to improve his attitude, study habits and achievement. Another letter may be sent to the parents before the Christmas examinations reminding them that conscientious effort is needed on these examinations to avoid exclusion in February. In January, the counsellors review the

³Approximately November 15th, the first report cards are issued and laggards are identified.

Christmas examination results and prepare a list of those students who have shown no improvement. In conference with staff, the principal decides on students to be excluded, with the benefit of any doubt being given to the student. Students not excluded but who failed to improve are kept on continuing probation unless other factors explain their shortcomings.

III. RESULTS OF POLICY

There appears to be general agreement among administrators and staff that the moral tone and well-being of Calgary schools is being well served by the policy. Administrators state that the policy is a real deterrent to students not warned. They insist that the students who are warned, and who subsequently remain in school, show marked improvement and that the more undesirable laggards either drop out or are excluded.

An innovation in educational administration, the Calgary Laggard Policy has drawn enquiries from all parts of North America and even from the Leeward Islands. A number of school divisions in Alberta have adopted similar policies. Articles about the policy have appeared in numerous periodicals. Educators in various centers have termed it an important break-through in administrative technique.

In reviewing the results, Mr. Warren, School Superintendent states, "The high school administrators and teaching

staff feel very definitely that this policy has improved the morale of the entire student body. By way of objective evidence it has been demonstrated that the achievement scores on the Grade XII examinations have risen considerably over the past three or four years.⁵

The numbers of students asked to withdraw by application of the policy are indicated in Table I. It is evident from the table that less than one per cent were excluded in 1959. The number of students affected gradually increased from inception of the policy until 1958. This fact may be due in part to a cautious initial application and partly to the increasing high school population. The decrease in 1959 may be attributed partly to the force of the policy, but there is no proof that this was true or that there will be a continuing effect.

TABLE I

INCIDENCE OF EXCLUSIONS UNDER PROVISIONS OF THE CALGARY
LAGGARD POLICY 1955-1959 INCLUSIVE

Year	Exclusions	Enrolment	% Excluded
1955	11	3271	.34
1956	22	3400	.65
1957	30	3777	.80
1958	36	4259	.85
1959	35	4696	.75

⁵R. Warren, Superintendent of Schools, Correspondence Regarding the Calgary Laggard Policy.

Table II shows the variability of classification from school to school. Variations between warnings and exclusions reflect the variety of techniques used by the different schools. Schools A and B are the only composite high schools in Calgary.

TABLE II
INCIDENCE OF WARNINGS AND EXCLUSIONS BY SCHOOLS
DURING THE YEAR 1959

School	Warnings	Exclusions
A	180	12
B	55	11
C	24	4
D	30	2
E	9	3
F	35	3

In 1959, four appeals were heard by the board and all were denied. No appeals have been upheld to date and, although threats have been made, no case has so far been tried in civil court. Principals are constantly warned that the decision to exclude a student must be based on the consensus of opinion of all the staff concerned. Where there is the slightest doubt, the pupil will not be excluded.

IV. GENERAL PROBLEM OF THIS INVESTIGATION

The Calgary Laggard Policy seems to be fulfilling its intended purpose. It has increased school morale, increased the degree of satisfaction of teachers, decreased distraction by resistant students, and improved learning situations for the serious students. It should be examined with respect to certain other features.

In many educational circles the laggard policy is considered a weeding out process for "loafing" students. While this may not be the main expectation of the policy, it should certainly be possible to determine if the attrition is greater due to loss of laggard students. Do laggard students drop out of school to a significantly greater degree than is the case with the general student population?

No school system is worthy of the name that does not try to straighten the path for wayward youth. Many administrators believe that the policy is a device to stimulate the laggard to improve his marks and thus avoid the stigma of exclusion. It should be possible to study marks on subsequent report cards to determine whether warning letters have the effect of improving laggards' achievement. Do identified laggards tend to improve their achievement?

What characteristics describe laggards? The literature

reveals that boys tend to underachieve more than girls. Do male laggards exceed female laggards by a significant amount? The original concern of the policy was not with the students who try hard and yet are unable to succeed, but with those who simply fail to put forth an effort. Are laggards equal to non-laggards in intellectual ability? Do laggards belong to the same age group as non-laggards? If laggardness is a continuing process and streaming is effective, do laggards tend to take general, technical, or commercial courses? Interpretation of the policy varies from school to school, principal to principal. Does the school attended affect the incidence of laggardness? Analysis of achievement scores on Grade XII examinations may reveal significant increases since inception of the policy.

V. SPECIFIC PROBLEMS

The investigation described herein was designed for the purpose of analyzing the Calgary Laggard Policy. It will attempt to find answers to the following questions:

1. Do laggard students improve their academic achievement more than do non-laggard students?
2. Do Grade XI laggards improve their achievement more than do Grade X laggards?
3. Do female laggards improve their achievement more than do male laggards?

4. Do laggards differ significantly from non-laggards in
(1) sex; (2) age; (3) intellectual ability; (4) program
of studies; (5) school attended; (6) grade attained;
(7) drop out rate?
5. Has there been an improvement in the achievement of
Calgary Grade XII students from 1954 to 1959?

CHAPTER II

RELATED LITERATURE

Research in the field of probation is limited to a few but thorough investigations. These studies will be augmented by inclusion of literature on related themes.^x

That probation has become a topic of interest is evidenced by the large number of letters received by the Calgary School Board. However, this interest is not reflected in the periodical literature.

I. PROBATION

One of the earlier descriptions of a high school probation system was made by Reavis in 1925. At that time he wrote, "The administration of failing pupils is a problem that has occasioned much discussion...While the high school cannot unload its responsibility for failure on students, it errs in its administration of the pupils unless it develops in them a keen sense of responsibility for the proper use of school time and opportunities." Superintendent Cole recommended to the Seattle School Board the adoption of a rule in the administration of failing high school pupils.

A student who does not pass in at least three subjects, in addition to the required work in gym, during any semester in school will be placed on probation at the beginning of the following semester, notice to the parent being given simultaneously. Failure to maintain a passing

^xBibliographical references to the footnotes of this chapter appear on pp. 36-42 of this thesis.

grade in three subjects during the probation semester shall cause him to be dropped from the regular high school at any regular reporting time during the semester or at the close of the semester, provided the parent has been duly warned. The time of dropping a student, whether it be at any regular reporting time or at the end of the semester, shall be left optional to the principal.

A student dropped from school on account of poor work will not be reinstated before one semester has elapsed after the close of the semester in which he was dropped, and, when reinstated, he will remain on probation until he makes a passing grade in three subjects in the one semester.

Exceptions may be made to the rule in case of illness or part time attendance.¹

In the operation of the rule, a failing pupil was singled out for definite attention. He was notified and warned. Parents were notified and their cooperation solicited. Principals and advisors were responsible for diagnosis, remedial treatment, program adjustment and evaluation of work habits, physical health, and out-of-school activities.

More recent evidence regarding probation was a student behavior policy adopted by the Salinas (California) Union High School District in August, 1958.

The unique feature is the provision that nondiligence in study is considered to be misconduct, which is subject to corrective and punitive measures including expulsion from school.

Emphasized are two points: (1) that failing grades in themselves do not necessarily constitute grounds for expulsion or suspension but should be regarded as signals to initiate investigation; and (2) that students who have behavior problems will receive, under the new policy, more individual attention and the parents will be brought into the situation.²

By this policy students may be placed on probation for non-diligence in studies. Parents will be notified when this action is taken. Students may be suspended by the principal for a period not exceeding two weeks provided immediate verbal notification followed by written notification is given the parents, a copy of which shall go to the superintendent. Exclusion from school may be done by the school board only. The article lists the administrative procedure for study of students considered for exclusion. Administrators, teachers, and guidance personnel are responsible for collecting and reviewing data. Recommendation is made by the principal to the superintendent, who recommends action to the board of trustees. Prior to the board's consideration, parents are notified by registered mail of the impending action. Parents then have forty-eight hours to request a public hearing. The expulsion shall be considered at an executive meeting, with final action to be taken at a public meeting. The superintendent must notify the parents and offer assistance in future plans.

Research surveyed by Boughter indicates that the number of students on probation is affected by admission policies, good standing demarcation, suspension and readmission policies. He concludes that it would seem advisable to reduce the number of terms probation students are permitted to remain without progress. It would also seem prudent to adjust admission,

probation and suspension policies so that the percentage of students on probation be maintained at level of "ten per cent freshmen and six per cent upperclassmen." Probation applied several semesters in succession or recurring frequently during a student's career may lose its effectiveness. A large proportion of students on probation may cause discipline problems, overwork guidance personnel and weaken the force of probation. Boughter proposed (1) research to establish the cut off point, (2) further enforcement and a raising of standards for probation and suspension, (3) more selective admission, (4) raising point-average cut off, (5) treatment of suspended cases individually and by a committee, (6) re-admission only upon evidence of maturity.³

Neild doubts that a system of probation has advantages which justify retaining such a procedure. A student might spend his time more profitably elsewhere. The University of Stanford spent two hundred and thirty thousand dollars on probation students during the year 1932. (This amount might well approximate one million dollars today.) He lists the advantages:

1. A period of probation gives a failing student an opportunity to redeem himself and possibly overcome some factor which may be causing or contributing to failure.
2. It makes the educational system seem less harsh and may tend to preserve a certain amount of harmony which might be endangered by students who believe

they could succeed if given the opportunity which a period of probation offers.

3. It is in keeping with the democratic idea that every person should be given every opportunity to secure a higher education if he so desires.⁴

Merrill reports that probation is universal in colleges and universities but adds that little research has been made on the subject. At the University of Washington the list of probation students is compiled by the registrar's office on the basis of grade point average. Students below one point (a C average) are turned over to the Scholastic Committee for investigation and action--action in this case being counseling, mandatory reduction of academic load and curtailed campus activity.⁵

Williams found criteria varied from school to school but in the majority of cases it was based on the student's scholastic average.⁶

Studies by Blake,⁷ Jones,⁸ Buschman,⁹ Hackett,¹⁰ Whitmer,¹¹ Brown,¹² Shearer,¹³ Hountras,¹⁴ Eurich,¹⁵ Strabel,¹⁶ Sheedy and Dressel,¹⁷ and others give evidence of widespread application of probation especially in universities.

In summary:

1. When action is taken parents and students should be notified.
2. Concern should not be with a failing student who is trying as much as with a student capable of passing

who is failing through lack of effort.

3. The cost of time and money spent on probation may outweigh the advantages.
4. Grade point averages usually define the cutoff point.
5. Numbers on probation and numbers suspended should be controlled.

II. THE PROBATION STUDENT

Calgary administrators are concerned with failing students who are just not putting forth an effort. Early identification of such laggards would be of real value to guidance personnel. This would provide time to guide the student into more effective study habits, to adjust the student's program and to help him with personal problems which may be affecting academic performance.

Woellner lists lack of study habits, poor reading habits, poor home conditions, dislike of teachers and school, and too many extracurricular activities as reasons for students not doing their best.¹⁸ Boughter concludes that lack of academic success is related to scholastic ability, persistence, motivation, personal adjustment, and study habits.¹⁹ Brown administered the Mooney Problem Check List to probation and honor students and found that the specific problems of probation students were: low marks,

fear of failure, poor study habits, uninteresting courses, obtaining marks that do not measure ability fairly, not taking things seriously enough, failing in many efforts, and not attaining goals. The probation student had greater difficulty in personal-psychological factors and adjustment to school factors.²⁰ In a study matching probation students with successful students with respect to aptitude, occupation of parents, language spoken at home, and high school attended, Jones administered a personal data blank concerning personal and environmental factors. In areas of greatest difference, probation students had a tense home life, little study time, few hobbies, and a poor high school record. In areas of some difference, probation students worried less, had fewer definite chores when young, kept problems to themselves, had more self-confidence, and had poorer relations with parents. The effect of the sex of the dominant parent, the severity of discipline, and the position in family showed no difference between probation and control groups.²¹

III. STUDY SKILLS

The literature reveals lack of adequate study habits as a major source of failure for college or high school students. Jones,²² Boughter,²³ Hackett,²⁴ Buschman,²⁵ Woellner,²⁶ and others working with probation students have stressed the fact that lack of adequate study skills

characterizes probation students.

Hadley tested freshman students and found that ninety-five per cent of those entering college lack adequate study skills; a relatively small percentage have reading speed and reading comprehension skills adequate to handle all assignments; a very small number can take notes.²⁷ Sister Josephine found gifted students below expectancy because of a lack of study skills.²⁸

Brainard studied home conditions, using as criteria a list of minimum standards for home study. Students lacked: a definite study location--a desk or table, freedom from major distractions and loud noises, freedom from home emotional stress, a dictionary, time for study, understanding of assignments. A program is needed which will make both parents and pupils aware of the basic conditions for home study.^x Activities designed to help pupils improve home study conditions or environments should become a part of the home room program.²⁹

Holtzman, Brown and Farquhar describe a new instrument for the prediction of academic success, which measures attitudes to study. The Survey of Study Habits and Attitudes can be used in counselling, diagnosing study difficulties,

^xCrescent Heights High School prepared such a list.
Appendix B.

and as an aid in remedial and how-to-study classes.³⁰

Stokes presents a device for the improvement of study habits. The instrument gives pertinent information about the student, and the counsellor is better able to plan, motivate, and provide for the students' interests effectively.³¹

Strang suggests that the emphasis be shifted from exclusive focus on the specific study techniques to conditions within the individual and the environment. Teachers and parents can make conditions more conducive to study without reference to study habits.³²

Sister Josephine concludes that planned systematic teaching of study skills deserves important consideration in formulating objectives for the elementary school. For future academic success teachers must be conscious of the need for direct presentation. Study skills can be begun as soon as the pupils handle books in a formal manner.³³

Heaton and Weedon, in an intensive study of study habits and skills, concluded that attention to study habits and skills may be misdirected and may oversimplify the problem of failure. Students with emotional and health difficulties may profit little from direct instruction in habits and skill. Students with poor motivation may benefit but little from such instruction. Direct instruction may increase the difficulties of these students. It should not be assumed that students

study effectively in exactly the same way but certain techniques, practices and environmental conditions are effective for the majority of students. Attention to such methods and conditions may help both the failing student and the successful student.³⁴

IV. READING

Heaton and Weedon,³⁵ Woellner,³⁶ Tesseneer and Tesseneer,³⁷ Bond,³⁸ and others conclude that low reading ability may be an important cause of academic failure.

Sochor found the correlation between reading and verbal intelligence to be .69.³⁹ Traxler⁴⁰ and others concur. These correlations do not denote a complete cause-effect relationship between reading and intelligence. Piekarz points out that low reading ability exists apart from intelligence as a cause of failure and ineffective reading habits may be due to factors other than intellectual ability.⁴¹

The Chicago Conference on Reading emphasized repeatedly that reading is essential in the various content fields. Speakers recognized the many variations in the curricula and concluded that required reading attitudes and skills vary with the kinds of material read and with the purposes of reading.⁴² Bond studied the effect of specific reading skills on achievement in various areas. Specific reading skills

relate to success in different content areas in varying degrees.⁴³ Husband and Shores summarized literature on reading for problem solving as follows: the difference between various areas is "one of degree and direction of differentiation of a generalized ability to read rather than a difference in the kind of skill required."⁴⁴ Artley gives these differentiating factors as the instructional goals, nature of material, symbolism used, methods of instruction, and type of problems.⁴⁵

In reviewing dissertations by Artley, Maney and Sochor, Betts states that there appears to be a "substantial specificity" of related reading skills and abilities which general reading tests were not measuring.⁴⁶ Bond claims that subtle relationships between skills in reading and academic achievement are obscured by blanketing them under composite achievement.⁴⁷

V. PERSONAL AND SOCIAL FACTORS

There is little doubt among educators that there is a very close relationship between personal and social factors and academic achievement. The majority of studies show that the complex interaction of these factors makes it extremely difficult for guidance personnel and teachers to generalize their effects. Although each individual pupil has his own unique behavior pattern, adolescents tend to conform, and it

may be possible to study the conforming behavior of the indifferent student.

Listed high in studies of causes of underachievement is dislike for teachers, school, and subject matter. Havighurst,⁴⁸ Shaw and Grubb,⁴⁹ and Shaw and Brown⁵⁰ indicate that general hostility is a characteristic of chronic under-achievers.

Huber states that the indifferent student becomes a nagging discipline problem.⁵¹ Kaye and others conclude that the resistant student is uninterested, uncooperative, non-conforming, rebellious, hostile, insolent and disrespectful; that he cuts classes and stays away from school.⁵²

In discussing the 'disorderly pupil' Cutts and Moseley suggest that low marks over a period of years are not proof that low intelligence causes misbehavior. Misbehavior of all chronic offenders generally includes unwillingness to study. School failure is a concomitant of deviant behavior.⁵³

Is it possible that high schools in Calgary could ever retrogress to the situations Kvaraceus⁵⁴ and Rafferty⁵⁵ describe? Kvaraceus claims that the disfunctioning curriculum is rapidly turning the American high school into an "adolescent ghetto." Rafferty suggests while it may be partly the fault of the school, it would seem that no more rewarding goal than sheer sensuality has succeeded in capturing the imagination of the "slob."

VI. TREATMENT FOR PROBATION STUDENTS

If all laggard students could be helped to reach their potential, the resulting value to society is beyond speculation, and the individual would live a better, happier, and more productive life.

Already suggested were courses in study habits and reading skills. Blake found that students who were assigned to probation status and were required to take the University of Maryland compulsory study skills and reading training program were benefited academically.⁵⁶

Eurich outlined a remedial program at the University of Minnesota. This program included counselling, drill in fundamentals, and general encouragement. In the fall quarter three classes per week were devoted to probationers. Tests and exercises were used to determine intelligence, level of reading ability and general achievement. Attempts were made to get students to understand themselves and to provide training in study habits and reading skills. In the winter and spring quarters study was supervised. Gains in scholarship were made but the special training was not effective in raising achievement to the level of non-probation students.⁵⁷

Whitmer compared a year in which probation students were given remedial instruction and one in which such training

was not given. The training proved effective for the student who is capable of maintaining a high level of performance. Assistance should be given early.⁵⁸

Reavis describes ungraded high school classes which were voluntarily attended during the semester for which the student was barred. An attempt was made to diagnose the problem and apply a remedy.⁵⁹

For improvement in study skills and reading skills a two-method program is necessary: (1) developmental, (2) remedial. McDonald,⁶⁰ Willey and Thompson,⁶¹ and Blake⁶² report controlled studies of students who received improvement courses, showing that participants were significantly better than the control group in achievement.

Improvement begins in the developmental program. Taba,⁶³ Petty,⁶⁴ and Fay⁶⁵ emphasize that any subsequent ability must be based on a foundation in basic skills. Whipple,⁶⁶ McCullough,⁶⁷ Jacobson,⁶⁸ and the Chicago Conference⁶⁹ stress the importance of developing reading skills in those areas where they are functional. Barbe shows only two to five per cent need remedial instruction, but all students can profit.⁷⁰ Turner,⁷¹ Tufvander and Zintz⁷² found evidence to show that remedial reading programs increase achievement and personal adjustment.

Mentioned frequently as a remedial measure is a reduction of load. Buschman,⁷³ Merrill and Osborne,⁷⁴ and Andrew⁷⁵

studied the relationship between academic load and academic success. Their results show that reduction in load does not produce an increase in academic achievement. Buschman actually found an increase in load to be at least as effective, and perhaps more. He did find that a change in program was often an effective measure in promoting academic success. Reduction of outside load was also a factor in improvement.

A counselling program is of extreme importance. Hackett evaluated a program of counselling students on probation. All probationers showed higher achievement, but there was no significant difference between those counselled and those not counselled. Counselling was successful in increasing student awareness of what constitutes efficient study habits. Students counselled go off probation in larger numbers than those not counselled. More than one contact was needed, and more than five were not productive.⁷⁶ Strabel found that the students interviewed had the same initial achievement, more academic and employment hours than the non-interviewed group, and yet showed a lower percentage of failures in subsequent work than the group not interviewed.⁷⁷ Calhoun also notes improvement as a result of counselling procedures.⁷⁸

More radical programs are suggested by some educators. Huettnner and Hosmanek describe an educational camp for those

students suffering from personal-psychological problems. A camp would be more conducive to study than home. These camps could be fitted to individual needs, abilities, and interests. A student could discover some source of ability, interest or pride to use in becoming a responsible productive citizen.⁷⁹ Corey presents a class for chronic failures free from the stifling traditional classroom with its barriers to learning. The class is voluntary; students work at the appropriate level and on a highly individualized basis. Tensions lessen, and students show more desire with subsequent improvement in performance and behavior. No diplomas are received until the student meets the academic requirement.⁸⁰

In summary:

1. Probationers have poor study habits and reading skills. These may be improved through developmental and remedial training.
2. Reduction in load does not, in itself, produce improvement in achievement.
3. Counselling students produces improved marks. Three or four contacts is optimal.
4. Some students, especially those with personal-psychological problems, may profit by release from the traditional classroom.

VII. EXCLUSION

The practice of temporizing with failing students after diagnosis and remedial work have failed, creates an educational situation which is detrimental to both school and individual. Reavis also claims it to be a moral as well as an economic waste. If society regards secondary education as fundamental, then it must provide specific opportunities of a compensating nature.⁸¹

Huber would not advocate closing doors to the student who really tries, but does advocate excluding those who are a nuisance and detrimental to the general welfare. Some students just don't want the kind of life educators envision for them. Apprenticeship in the real thing would help dispel indifference.⁸²

According to Silverman, schools should have increased remedial services, with accent on treatment and understanding, rather than stern discipline. But for those students who don't want to go to school, administration should relieve the classroom of the "handful of unhappy unadjustives." Release from school should come from the decision and action of a committee including the principal, the guidance director, the teacher, the social worker, a legal counsellor, a clergyman, and the parents. The student may then be supervised by an authorized agency.⁸³ A similar suggestion was made by Hunt.⁸⁴

VIII. EFFECTS OF PROBATION

Merrill evaluated the academic performance of probation students at the University of Washington. His conclusions were:

The probation students made significantly higher grades the two quarters following probation. Averages of non-probation students did not show a similar increase. A higher proportion of probation students, however, dropped out before graduation.⁸⁵

Blake followed up probation students and a control group at the University of Maryland. Probation students were benefited academically. Of the probationers, 22.6 per cent graduated, and 47.3 per cent of these went on to graduate studies.⁸⁶

Strabel found that students who passed courses in which they were warned were higher in achievement and on their place in the high school graduating class, showing that previous work is more important than scholastic aptitude.⁸⁷

Eurich,⁸⁸ Jones,⁸⁹ Hackett,⁹⁰ Whitmer,⁹¹ Buschman,⁹² all report probation effective in improving the achievement of the probation students, but most also point out that probation students never achieve the level of non-probation students. Reavis found that probation students with high intelligence either quit or got down to work.⁹³

IX. SUMMARY

The following points may be made in summary of research and opinion related to the problems of this investigation. Although literature regarding academic probation policies is meager, there has been considerable interest throughout the years.

Academic probation appears universal in colleges and universities, but probably has not been used extensively in high schools. Concern should not be over a failing student who is trying as much as with a student who simply fails to put forth any effort. Parents and students should be notified. The cutoff point is usually expressed in terms of grade point average, and the number on probation should be controlled.

Probation students have greater difficulty in personal-psychological factors and adjustment to school factors. They have poor study habits and attitudes. They also have low critical reading ability, especially in the content areas.

All efforts should be made by the staff to effect rehabilitation. Remedial and developmental programs in study habits and reading skills have been useful in improving the academic achievement of probation students. Other forms of rehabilitation include ungraded classes, reduction of load, counselling, educational camps.

Exclusion may be the only answer for some students.

Whenever applied, it should receive careful consideration by a committee of responsible citizens. Exclusion must be accompanied by opportunities of a compensating nature.

Finally, although probation may be desirable in that achievement may improve, the cost may outweigh the advantages, since these students do not appear to bring their achievement to the level of the other students.

FOOTNOTES TO CHAPTER II

¹W. C. Reavis, "The Administration of Failing Pupils in the High Schools of Seattle, Washington," School Review, XXXIII (January, 1925), 28-34.

²Student Behavior Policy, Clearing House, XXXIII (February, 1959), no. 6; 348-52.

³V. R. Boughter, "Probation Suspension and Related Problems," North Central Association Quarterly, XXXI (January, 1957), no. 3; 249-55.

⁴J. W. Nield, "What Can We Expect of Probationers?" School and Society, XXXVI (October, 1932), 574-6.

⁵Reed M. Merrill, "An Evaluative Study of Probation Students Academic Performance in a University," Journal of Educational Research, XLVIII (September, 1954), 37-45.

⁶R. L. Williams, "The Administration of Academic Discipline in 337 American Colleges and Universities," American Association of College Registrar's Bulletin, July 1938.

⁷W. S. Blake, Jr., "Does Compulsory Training Help Students on Probation," Personnel and Guidance Journal, XXXIII (October, 1954), 94-6.

⁸E. S. Jones, "The Probation Student: What He Is Like and What Can Be Done About It," Journal of Educational Research, XLIX (October, 1955), 93-102.

⁹Wm. O. Buschman, "Report on Probation Students," School and Society, LXXVI (October, 1952), 232-4.

¹⁰H. R. Hackett, "Evaluation of a Program of Counseling Students on Probation," Personnel and Guidance Journal, XXXIII (May, 1955), 513-6.

¹¹C. A. Whitmer, "A Study of the Scholastic Progress of College Probationers," Journal of Applied Psychology, XVII (February, 1933), 39-48.

¹²Wm. H. Brown, "The Problems of Probation and Honor Students," Education Research Bulletin, XXXII (January 14, 1953), 14-16.

FOOTNOTES TO CHAPTER II (continued)

¹³Merrill, loc. cit.

¹⁴P. T. Hountras, "Factors Relating to Academic Probation Among Foreign Graduate Students," School and Society, LXXXV (October, 1957), 311-2.

¹⁵A. C. Eurich, "Improvement in School During Probationary Period," School and Society, XXXV (January, 1932), 129-34.

¹⁶E. Strabel, "What About Warned Students?" School and Society, XLII (October, 1935), 581-4.

¹⁷J. W. Sheedy and P. L. Dressel, "Effect of a Final Warning Extension on Academic Performance," College and University, XXXI (October, 1955), 48-52.

¹⁸R. C. Woellner, "Why Don't Students Do Their Best," School Review, LXI (1953), 325.

¹⁹Boughter, loc. cit.

²⁰Brown, loc. cit.

²¹Jones, loc. cit.

²²Jones, loc. cit.

²³Boughter, loc. cit.

²⁴Hackett, loc. cit.

²⁵Buschman, loc. cit.

²⁶Woellner, loc. cit.

²⁷L. S. Hadley, "New College Students Lack Study Techniques," School and Society, LXXXV (November 23, 1957), 353-4.

²⁸Sister Josephine, "Study Skills Performance of Gifted Pupils," School and Society, LXXXVI (May, 1958), 223-4.

²⁹E. Brainard, "Homework and Home Study Conditions," Clearing House, XXXIII (November, 1958), 169-70.

FOOTNOTES TO CHAPTER II (continued)

³⁰W. F. Brown and W. H. Holtzman, "Use of the Survey of Study Habits and Attitudes for Counselling Students," Personnel and Guidance Journal, XXXV (December, 1956), 214-8.

³¹M. S. Stokes, "A Device for the Improvement of Study Habits," Peabody Journal of Education, XXXVI (November, 1958), 158-65.

³²R. Strang, "An Introspective Approach to Study Problems," Journal of Educational Research, LI (December, 1957), 271-8.

³³Sister Josephine, loc. cit.

³⁴K. L. Heaton and V. Weedon, "The Failing Student," Chicago, University Press, 1939.

³⁵Heaton and Weedon, loc. cit.

³⁶Woellner, loc. cit.

³⁷R. A. Tesseneer and L. M. Tesseneer, "Review of Literature on School Dropouts," National Association of Secondary School Principals' Bulletin, XLII (May, 1958), 141-53.

³⁸Eva Bond, "Research in the 3 R's," Edited by C. W. Hunnicutt and W. J. Iverson, New York; Harper and Brothers, 1958.

³⁹E. E. Sochor, "Special Reading Skills are Needed in Social Studies, Science and Arithmetic," The Reading Teacher, VI (March, 1953), 4-11.

⁴⁰A. E. Traxler, "A Study of the California Test of Mental Maturity: Advanced Battery," Journal of Educational Research, XXXII (January, 1939), 329-35.

⁴¹J. Piekarz, "Getting Meaning from Reading," Elementary English, LVI (March, 1956), 303-9.

⁴²Chicago Conference on Reading, "Improving Reading in all Curriculum Areas," Compiled and Edited by W. S. Gray, (Supplementary Education Monographs, University of Chicago Press, no. 76, November, 1952).

FOOTNOTES TO CHAPTER II (continued)

⁴³Bond, loc. cit.

⁴⁴K. L. Husband and H. J. Shores, "Measurement of Reading for Problem Solving: A Critical Review of the Literature," Journal of Educational Research, (February, 1950), 453-65.

⁴⁵A. G. Artley, "Critical Reading in the Content Areas," Elementary English, XXXVI (February, 1954), 122-30.

⁴⁶E. A. Betts, "Research on Reading as a Thinking Process," Journal of Educational Research, L (September, 1956), 1-15.

⁴⁷Bond, loc. cit.

⁴⁸R. J. Havighurst, "What to Do About the Tough Hostile Boy," Phi Delta Kappan, XL (December, 1958), 136-8.

⁴⁹M. C. Shaw and J. Grubb, "Hostility and Able High School Underachievers," Journal of Counselling and Psychiatry, V (Winter, 1958), 263-6.

⁵⁰M. C. Shaw and D. J. Brown, "Scholastic Underachievement of Bright College Students," Personnel and Guidance Journal, (October, 1957), XXXVI, 195-9.

⁵¹L. W. Huber, "Compulsory Attendance and Indifferent Pupils," Education Digest, XXII (May, 1957), 22-4.

⁵²Kaye, Abramowitz and Olicker, "The Resistant Student," North American Secondary School Principals' Bulletin, XLII (October, 1958), 129-33.

⁵³N. Cutts and N. Moseley, "What You Can Do to Help the Disorderly Underachiever," Education Digest, XXIV (March, 1959), 35-7.

⁵⁴C. V. Kvaraceus, "The Behavioral Deviate in Secondary School Culture," Phi Delta Kappan, XL (November, 1958), 102-4.

⁵⁵R. L. Rafferty, "The Cult of the Slob," Phi Delta Kappan, XL (November, 1958), 56-9.

⁵⁶Blake, loc. cit.

FOOTNOTES TO CHAPTER II (continued)

⁵⁷Eurich, loc. cit.

⁵⁸Whitmer, loc. cit.

⁵⁹Reavis, loc. cit.

⁶⁰A. S. McDonald, "Influence of a College Reading Improvement Program on Academic Performance," Journal of Educational Psychology, XLVIII (March, 1957), 171-81.

⁶¹D. S. Willey and C. W. Thompson, "Effective Reading and Grade Point Improvement with College Freshmen," School and Society, LXXXIII (April 14, 1956), 134-5.

⁶²Blake, loc. cit.

⁶³H. Taba, "Problems in Developing Critical Thinking," Progressive Education, XXXVIII (November, 1950), 45-8.

⁶⁴W. Petty, "Critical Reading in the Primary Grades," Elementary English, XXXIII (May, 1956), 298-302.

⁶⁵L. Fay, "What Research Has to Say About Reading in the Content Areas," The Reading Teacher, VIII (December, 1954), 68-72.

⁶⁶G. Whipple, "Controversial Issues Relating to Reading in the Curricular Areas," The Reading Teacher, VIII (April, 1955), 208-11.

⁶⁷C. M. McCullough, "What Does Research Reveal About Practices in Teaching Reading," English Journal, XLVI (November, 1957), 475-90.

⁶⁸P. B. Jacobson, "The Effect of Work Type Reading Instruction Given in the Ninth Grade," School Review, XL (April, 1952), 273-81.

⁶⁹Chicago Conference on Reading, loc. cit.

⁷⁰W. G. Barbe, "Attempts to Solve Reading Problems," School and Society, LXXXV (June 8, 1957), 197-9.

⁷¹C. S. Turner, "Remedial Reading Pays Dividends in the Junior High School," English Journal, XLVIII (March, 1959), 136-40.

FOOTNOTES TO CHAPTER II (continued)

⁷²E. A. Tufvander and M. V. Zintz, "A Follow-up Study of Pupils with Reading Difficulties," Elementary School Journal, LVIII (December, 1957), 152-6.

⁷³Buschman, loc. cit.

⁷⁴Reed M. Merrill and H. W. Osborne, "Academic Overload and Scholastic Success," Personnel and Guidance Journal, XXXVII (March, 1959), 509-10.

⁷⁵D. C. Andrew, "Relationship Between Academic Load and Scholastic Success of Deficient Students," Personnel and Guidance Journal, XXXIV (December, 1956), 268-70.

⁷⁶Hackett, loc. cit.

⁷⁷Strabel, loc. cit.

⁷⁸S. R. Calhoun, "The Effect of Counselling on a Group of Underachievers," School Review, LXIV (October, 1956), 312-6.

⁷⁹O. F. Huettner and J. J. Hosmanek, "Atypical Attitudes in Typical Schools," Clearing House, XXXII (November, 1957), 181-2.

⁸⁰S. M. Corey, "A Class for Chronic Failures," School Review, LVI (March, 1958), 132-4.

⁸¹Reavis, loc. cit.

⁸²Huber, loc. cit.

⁸³H. L. Silverman, "Educational 'Unadaptives' and the Schools," National Association of Secondary School Principals' Bulletin, XLII (October, 1958), 129-33.

⁸⁴P. H. Hunt, "Job-upgrading: Rehabilitation for the Drop-out," Phi Delta Kappan, XL (February, 1959), 219-20.

⁸⁵Merrill, loc. cit.

⁸⁶Blake, loc. cit.

⁸⁷Strabel, loc. cit.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization. This section also outlines the various methods used to collect and analyze data, ensuring that the information is reliable and up-to-date.

2. The second part of the document focuses on the implementation of the proposed changes. It details the steps involved in the process, from the initial planning stage to the final execution. This section also addresses the potential challenges that may arise during the implementation phase and provides strategies to overcome them.

3. The third part of the document discusses the results of the implementation. It presents the data collected and analyzes the outcomes of the changes. This section also compares the results with the initial goals and objectives, highlighting the areas where the organization has made significant progress and the areas that still need improvement.

4. The fourth part of the document provides a summary of the findings and conclusions. It reiterates the importance of maintaining accurate records and the need for continuous improvement. This section also offers recommendations for future actions and provides a clear path forward for the organization.

5. The fifth part of the document is a conclusion. It summarizes the key points of the document and provides a final statement on the importance of the work described. This section also expresses the author's confidence in the organization's ability to achieve its goals and objectives.

FOOTNOTES TO CHAPTER II (continued)

⁸⁸Eurich, loc. cit.

⁸⁹Jones, loc. cit.

⁹⁰Hackett, loc. cit.

⁹¹Whitmer, loc. cit.

⁹²Buschman, loc. cit.

⁹³Reavis, loc. cit.

CHAPTER III

DESIGN OF THE EXPERIMENT

In planning the experimental design consideration was given to the basic assumptions, sampling, collection of data, problems, hypotheses, analysis of data, and interpretation of findings.

I. BASIC ASSUMPTIONS

Assumptions which are basic to this study and direct the setting and testing of hypotheses should be stated at the outset.

1. The primary purpose of Calgary high schools is the education of all youth to the maximum of their potential.
2. The Calgary Laggard Policy was formulated with this purpose in mind, and thus is desirable.
3. The Calgary Laggard Policy was instituted primarily to identify students needing help and to focus attention upon these students.
4. All efforts have been made to rehabilitate laggard students. The staff are interested in helping laggard students overcome deficiencies and are not using the laggard policy as a weapon of recrimination.

5. The various Calgary high schools offer the same devices, procedures, and policies for effective interpretation of the policy, for example: library, guidance, supervision, and extra-curricular activities.
6. Factors affecting laggards but not studied in this investigation are distributed randomly throughout a typical student population.
7. The main purpose of the achievement test is to improve the educational program. Fall tests are used for guidance purposes and as effective arguments to change certain habits of the students.
8. The Calgary Laggard Policy remains reasonably consistent from year to year, school to school, and grade to grade.
9. Better judgement of the laggard policy can be obtained by centering attention on one problem at a time, and the general value of the policy can be approximated by a summation of the values of specific aspects.

II. SELECTION OF THE STUDENTS FOR STUDY

Institutions. The size and programs for the six Calgary high schools for 1958-59 are described in Table III, page 46. Western Canada and Crescent Heights, large composite high schools servicing more than half of Calgary's population, were selected for this study. The other high schools possess

certain disadvantages: Viscount Bennett and Queen Elizabeth had Grade XII classes for the first time in 1958-59; William Aberhart had only Grade X classes; Central is a smaller, academic school.

The Laggard Student Sample. In the implementation of the Calgary Laggard Policy, administrators and counsellors classify as laggards, students who are having academic difficulty. Certain screening devices^x are used to select students who are not putting forth an effort. Any student, showing an underachievement of over fifteen points on the T-score, or an achievement less than .25, may be considered a laggard. Actual classification is left to the discretion of the administration, and is often an arbitrary one. The term "laggard" as used hereafter in this study refers to the above definition.

Table III indicates the numbers of laggards from all schools in 1958-59; 180 in School A and 55 in School B together formed approximately seventy per cent of the city's total laggard population for that year. The laggard student sample for this study is composed of Grade X and XI laggards from these two schools for 1957-58 and 1958-59. Because students' records were not always complete, the sample sizes vary somewhat for certain minor parts of the study.

^xAppendix A

The Control Sample. The control sample also varies somewhat in certain parts of this study. Some pertinent data are available for the population of all Calgary high school students, but in some instances representative control samples were selected from this population. The control samples are discussed with each study.

The number of students in the various Calgary schools as of June, 1959, is illustrated in Table III. Schools A and B have approximately sixty per cent of the total high school enrolment for the city.

TABLE III

SCHOOLS: THEIR PROGRAMS, POPULATIONS, AND LAGGARDS FOR 1958-59

School	Program	Population	Laggards
A	Academic, General, Technical, Commercial	1328	180
B	Academic, General, Technical, Commercial	1256	55
C	Academic, General	485	24
D	Academic, General, Technical	417	30
E	Academic, General	217	9
F	Academic, General, Technical	652	35
Total		4355	533

III. COLLECTION OF THE DATA

Data were gathered with due regard to purpose. To produce as valid data as possible, several sets of statistics have been collected. The appropriate set and the particular source will be described with the respective problem.

The sources which were made available for this study are:

1. Administrative files at the Calgary School Board offices.
2. Administrative files at two Calgary high schools--Crescent Heights and Western Canada.
3. Cumulative record cards, guidance folders and grade record cards.
4. Results of the Grade IX and Grade XII departmental examinations.

It is assumed that data obtained from these sources are valid and reliable.

Data collected are: achievement scores, sex, grade, age, intelligence quotient, program of studies, school attended, survival ratio, number of laggards, and total number of students.

Achievement scores, used to test more than one hypothesis, will be illustrated here. For each credit hour of H, the student receives five honor points; of A, four honor

points; of B, three honor points; of C, two honor points; of D, one honor point. (A student with two A's, two B's, two C's, and two D's, would have an achievement score of twenty.) Eblin studied honor point systems and found the 4, 3, 2, 1, 0 system more meaningful than 3, 2, 1, 0, 0 and easier to calculate than 3, 2, 1, 0, -1.¹ The system used in this study (5, 4, 3, 2, 1) has the same linear characteristics as 4, 3, 2, 1, 0 but gives the student credit for a D. Although a student receives no credit hours for a D, most D marks tend to vary between thirty and forty, showing some effort, even if it is small. Since both scales are linear, no difference in calculations will be noticed. It is assumed that the teachers' marks are reliable, valid and objective, or that any unreliability and invalidity will tend to randomize out in such large schools. There is perhaps a need here for a standardized city-wide test near the end of October, to further objectivize and standardize the scores which are used to classify laggards.

IV. IMPROVEMENT OF LAGGARDS

Major Problem--Do Laggards Improve Their Achievement More Than Do Non-laggards? The achievement scores of

¹L. P. Eblin, "A Comparison of Scholastic Point Systems," College and University, XXX (October, 1954), 12-7.

students classified as laggards or warned will be compared to the achievement scores of the non-laggard student population.

The hypothesis to be tested is: laggard students, after the receipt of warning letters, do not improve their achievement significantly in comparison to the non-laggard student population.

To test the hypothesis, a sample of the laggard population classified in November of 1957 and 1958, and restricted to Grades X and XI in Crescent Heights and Western Canada High Schools, was selected. This sample, shown in Table IV, is assumed representative of the high school laggard students. Many laggards dropped out before the final report and are not included in the sample.

A sample of the non-laggard population was also selected. Although no conscious effort was made to match the two samples according to age, sex, intelligence, and socio-economic status, the groups were matched according to numbers, grades, schools, and years. It is assumed that this sample is representative of the non-laggard students.

TABLE IV
SAMPLE SIZES OF LAGGARDS AND NON-LAGGARDS

Sample	School A	School B	Totals
Laggards	198	172	370
Non-laggards	198	172	370

Laggard students are identified by low marks. Thus it is impossible to equate the laggard group and the control group on the November report. Through the statistical technique of analysis of covariance, it is possible to allow for these differences in the initial report by making adjustments to the subsequent report, and so compare the regression of final scores on initial scores for both samples. Calculations will be based on a technique illustrated by Walker and Lev.²

Basic to this study is the assumption that the improvement of laggard students is due to the laggard policy. If the person had been placed on the laggard list previously, can it logically be assumed that the laggard policy effects the improvement? Fluctuations appear in students' achievement from time to time. Is it possible that a sharp decline may have been a low period for a student who ordinarily does better, and for whom low marks would be an incentive?

Does the student show a history of laggardness in the lower grades? Objective evidence would be given by retentions in various grades or by results on grade IX departmental examinations. If the student has exhibited evidence of poor work in lower grades and improved sharply after warning, then it seems possible to assume that the warning has been

²H. W. Walker and J. Lev, "Statistical Inference," Henry Holt and Company, New York, 1953. Chapter 15.

effective.

The following assumptions are necessary to the use of analysis of covariance:

1. The achievement scores for the laggard sample are a random sample of the total group of laggards.
2. The achievement scores for the non-laggard sample are a random sample of the total group of non-laggards.
3. The regression of scores from initial to subsequent reports for laggards is similar to the regression of scores for non-laggards.
4. This regression is linear.
5. The distribution of adjusted scores for the two populations is normal.
6. These distributions have the same variance.

Do Grade XI Laggards Improve More than Grade X Laggards?

Do Female Laggards Improve More than Male Laggards?

The hypotheses to be tested are:

1. Laggards in either grade improve equally well regardless of the sex.
2. Laggards of either sex improve equally well regardless of grade.
3. Grade and sex exert an influence apart from each other.

To test the hypotheses a sample of the laggard population was selected as indicated in Table V. The sample was restricted to those students classified as laggards or warned

in Grades X and XI at Crescent Heights and Western Canada High Schools during the years 1957-58 and 1958-59. An attempt was made to equalize the numbers in each subgroup, by random selection from the total laggard sample.

TABLE V
SAMPLE SIZES FOR GRADE X AND GRADE XI LAGGARDS,
FOR FEMALE AND MALE LAGGARDS

Sample	Grade X	Grade XI	Totals
Female	50	50	100
Male	50	50	100
Totals	100	100	200

The 2X2 factorial design enables a quick determination of each of the factors, sex and grade, as well as an investigation of any interaction of sex and grade. Calculations are illustrated by Walker and Lev.³

The design is based on the following assumptions:

1. Each laggard subgroup is distributed randomly at the corresponding level of the student population.
2. Distribution of the achievement scores for each of the grades and sexes in the parent population is normal.

³Walker and Lev, op. cit. Chapter 14.

3. All levels of grade and sex have the same variance.
4. The corresponding subgroup frequencies for sex and grade are in the same proportion from sex to sex and grade to grade.

However, the study is limited, since the following conditions may prevail:

1. There is likely to be considerable selection at the end of the Grade X year. Students who do not receive credit to continue in certain courses will leave.
2. Selection is liable to favor the dropping of boys.
3. The high school population has been assumed normal. Selectivity through the grades has created a skewed distribution.
4. Distribution of laggards is likely to be heavily weighted at the lower end of the student population.

V. A PARTIAL DESCRIPTION OF LAGGARDS

The general hypothesis is: the laggard population and the general student population are identical in sex, age, intelligence, program of studies, grade attained, school attended, and drop-out rate. This hypothesis will be restated in the form of a series of hypotheses.

Sex. There is no sex difference in the trait, laggardness.

Age. Age is not a factor in determining laggardness.

Intelligence. There is no difference in intelligence between laggards and non-laggards.

Program of Studies. Laggards tend to be distributed in the curricula in the same proportion as non-laggards.

Grade Attained. An equal proportion of students in Grade X and XI will be classified as laggards.

School Attended. An equal proportion of students in each school will be classified as laggards.

Drop-out Rate. There is no apparent difference between the drop-out ratio of laggards and the drop-out ratio of the total school population.

To test the hypotheses, the significance of difference between means or proportions will be calculated. Because sample sizes vary considerably, severe limitations are placed on the interpretations of findings.

Sex. The proportion of male to female laggards will be compared to the proportion of male to female students in the total population. A sample of 305 laggards will be compared to the total population of 3592 in the same grades, schools and years.

Since studies have indicated male adjustment difficulties to be more severe, it appears safe to assume that skilled counsellors and teachers have made allowances for these difficulties.

Other assumptions seem to be:

1. There is no sex difference in intellectual ability, motivation or curricula adjustment.
2. Teachers show no sex discrimination in marking examinations or recording marks.
3. Administrators and counsellors show no sex discrimination in the interpretation of the policy.

Age. The actual age distribution of laggard students will be compared with the age distribution of the student population. A sample of 305 laggards will be compared to the total student population of 3592. Statistics on the age of laggards were obtained from cumulative record cards and statistics for the total population were available at the superintendent's office.

Because this study is limited to the extent that selection has taken place throughout the grades, there is likely to be a negative correlation between academic success and chronological age: younger students tend to make better grades than older students. If laggardness is a continuing state, it would be expected to find laggards older than non-laggards. Sex differences may also be reflected in age differences.

Intelligence. The intelligence quotients obtained from the Otis⁴ will be used to compare the sample of 305 laggards

⁴Otis Self-administering Tests of Mental Ability

to the total population. The mean and variance of the laggard sample will be compared to the mean and variance of the total population to determine whether laggards are randomly distributed in the total population with respect to intelligence.

This calculation assumes normality of distribution. Selection begins before a child enters school and through the grades a slow but continuous elimination occurs, causing high school distribution to be skewed.

The range of abilities at the various schools are assumed similar. This range, however, varies from school to school, grade to grade, and year to year.

Program of Studies. A sample of 305 laggards will be compared to all students (4044) in the same grades, schools, and years. Statistics are available from the administrative files of the schools, but these statistics may be unreliable at the Grade X level, since no clear distinction is evident between programs. Streaming of students in high school is assumed effective in placing students in programs where there is equal possibility of success, but the extent to which parental and social pressures operate, limits the analysis.

Grade Attained. A sample of 305 laggards will be compared to all students (4044) in the same grades, schools, and years. The study is limited by the selection which occurs during and after the Grade X year, and by the range

of abilities at the various grade levels.

School Attended. Implementation of the policy is considered to be similar for all schools. Since three schools are new, it is possible that there is a lag in operation at these schools; a lag which may slowly be eliminated. Sample sizes are indicated in Table III, page 46.

Range of abilities is assumed equal at the various schools, but there is always a fluctuation from school to school, and from year to year.

Teaching, guidance and administration are considered equivalent for all schools, and if any differential is evident here, it should favor older schools due to experience.

Drop-out Rate. The ratio of laggard drop-outs to total laggards will be compared to the ratio of total drop-outs to total population. It should be repeated that the Calgary Laggard Policy is not used as a weapon for recrimination, and the staff attempt to rehabilitate laggards. Those students who drop out of school are probably the most frustrated and dissatisfied; laggards are potential drop-outs. From a total of 578 laggards classified in 1957-58 and 1958-59, 203 dropped out of school before the final report. Statistics at the Calgary School Board office show the lowest survival ratio to be .86 for all Calgary students, or a drop-out ratio of .14.

VI. IMPROVEMENT IN ACHIEVEMENT OF THE STUDENT POPULATION

The achievement of Calgary Grade XII students on departmental examinations in 1954 and 1959 will be compared.

The hypothesis to be tested is: there is no difference between achievement on the 1954 examinations and on the 1959 examinations. The hypothesis will be tested by determining the significance of difference between the percentages of honor students in the two years; this test will be repeated for senior matriculants, diploma students, and failures.

It is assumed that significant differences between the two years illustrates a gradual improvement due to implementation of the laggard policy. Such an assumption is only valid if other conditions in those years have remained unchanged, and severe limitations would be placed on analysis if it was shown that attitude toward education has improved for other reasons: (e. g. Sputniks). Grade XII departmental examinations are assumed to be reliable, valid, and objective. Students writing Grade XII examinations are a pre-selected group, and it is highly possible that migration since 1954 has raised the level of academic ability among Calgary's high school students. If teaching, incentives, and grading have changed, the reliability of Grade XII scores is lowered.

VII. SUMMARY OF HYPOTHESES

A. Main Problem

1. Laggard students, after the receipt of warning letters, do not improve their achievement significantly in comparison to the non-laggard student population.

B. Other Problems

1. Grade XI laggards do not improve their achievement significantly in comparison to Grade X laggards.
2. Laggard students of either sex improve equally well, regardless of grade.
3. Laggards do not differ significantly from non-laggards in: (1) sex; (2) age; (3) intellectual ability; (4) program of studies; (5) grade attained; (6) school attended; and (7) drop-out rate.
4. There is no difference between the scores made by Calgary students on the Grade XII departmental examinations in 1954 and 1959.

CHAPTER IV

ANALYSIS

The available data were analyzed to find answers to the following questions: (1) Do laggards improve? (2) What qualities describe laggards? (3) Have the Calgary students improved on the Grade XII examinations?

I. IMPROVEMENT OF LAGGARDS

Major Problem--Improvement of Laggards in Comparison with Non-laggards. Mean achievement scores for the laggard and non-laggard groups on initial and subsequent reports are shown in Table VI.

TABLE VI

MEAN ACHIEVEMENT SCORES FOR LAGGARDS AND NON-LAGGARDS
ON THE INITIAL AND SUBSEQUENT REPORTS

Group	N	Initial	January	Final
		M	M	M
Laggard	370	17.99	18.99	18.08
Non-laggard	370	26.49	25.65	25.50
Lag		8.50	6.66	7.42

Laggards improved their score by one honor point from the initial to the January report, while non-laggards dropped 0.84 honor points in the same interval. From the January report to the final report, laggard marks drop 0.91 honor points, as compared to a drop of 0.15 honor points for non-laggards. Final laggard marks show an improvement from initial to final report of 0.09 honor points; non-laggard marks dropped 0.99 honor points. Hence it appears laggards have improved somewhat while non-laggards have dropped slightly.

Laggard scores lag non-laggard scores by 8.50 honor points at the initial report, 6.66 honor points at January, and 7.42 honor points at the final report. Laggards close the gap only slightly, and never do become equal to non-laggards.

An analysis of mean improvement scores serves as an initial check on the significance of the calculations shown in Table VI.

From Table VII, it appears that laggards improve significantly in comparison to non-laggards from the initial to January report, and also from the initial to final report.

These calculations thus answer the major question: laggards do improve.

TABLE VII
SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN IMPROVEMENT
SCORES FOR LAGGARDS AND NON-LAGGARDS

INITIAL TO JANUARY					
	Mean Improvement	S.D.	S.E.	C.R.	t.01
Laggard	1.00	2.98	.23	8	2.58
Non-laggard	-.84	3.22			
INITIAL TO FINAL					
	Mean Improvement	S.D.	S.E.	C.R.	t.01
Laggard	.09	3.09	.23	4.7	2.58
Non-laggard	-.99	3.23			

To further check the significance of these observations, analysis of variance and covariance will be used.

Is there a significant difference between the marks of laggards and non-laggards on the various reports? Table VIII summarizes the analysis of variance used to compare the two groups on the initial report.

TABLE VIII

ANALYSIS OF VARIANCE OF THE INITIAL ACHIEVEMENT SCORES
FOR LAGGARDS AND NON-LAGGARDS

Source	df	SS	MS (V)	F.	F.01
Between means	1	13375	13375	6079.5	6.66
Within groups	738	1631	2.2		
Total	739	15006			

The difference between the mean scores is very significant. Obviously the two groups cannot be equated on initial scores. Laggard scores are greatly inferior to non-laggard scores.

TABLE IX

ANALYSIS OF VARIANCE OF JANUARY ACHIEVEMENT SCORES
FOR LAGGARDS AND NON-LAGGARDS

Source	df	SS	MS (V)	F.	F.01
Between means	1	8162	8162	329	6.66
Within groups	738	18307	24.8		
Total	739	26469			

Although laggards improved somewhat, their January scores still lag the non-laggards by a significant degree.

TABLE X
ANALYSIS OF VARIANCE OF FINAL ACHIEVEMENT SCORES
FOR LAGGARDS AND NON-LAGGARDS

Source	df	SS	MS(V)	F	F.01
Between means	1	10109	10109	447	6.66
Within Groups	738	16682	22.6		
Total	739	26791			

Laggards still lag non-laggards by a significant amount. Implementation of the laggard policy does not succeed in raising laggard marks to the level of the non-laggards.

Do laggard marks improve significantly from the initial classifying report to the subsequent reports? Table XI summarizes the analysis of variance used to compare the laggard marks on initial and January reports.

TABLE XI
ANALYSIS OF VARIANCE OF INITIAL AND JANUARY
ACHIEVEMENT SCORES FOR LAGGARDS

Source	df	SS	MS(V)	F	F.01
Between means	1	121	121	10.61	6.70
Within groups	369	6124	16.6	1.46	1.11
Interaction	369	4197	11.4		
Total	739	10442			

The mean improvement for laggards from initial to January report, 1 honor point, is a significant improvement.

Table XII indicates the analysis of variance used to compare initial and final scores by laggards.

TABLE XII
ANALYSIS OF VARIANCE OF INITIAL AND FINAL
ACHIEVEMENT SCORES FOR LAGGARDS

Source	df	SS	MS(V)	F	F.01
Between means	1	15	15	2.2	6.7
Within groups	369	7454	20.2	2.9	1.11
Interaction	369	2490	6.7		
Total	739	9959			

The improvement, .09 honor points, which laggards show from initial to final report is not significant. It will be noted that during the same period the achievement of non-laggards decreased. When the variance within groups is divided by the variance between means, an F of 1.33 is obtained. This indicates that some laggards do show an improvement.

It is not possible to equate laggards and non-laggards on any of the reports. Analysis of covariance permits a comparison of the improvement of the two groups by the adjustment of January and final marks to allow for the initial

difference.

Table XIII presents the analysis of covariance for initial and January scores. It is clear from $F_{y.x}$ of 19.8 that the two January means differ significantly after they have been adjusted for initial differences.

TABLE XIII

ANALYSIS OF COVARIANCE OF JANUARY AND INITIAL ACHIEVEMENT
SCORES FOR LAGGARDS AND NON-LAGGARDS

Source	df	SS $y.x$	Vest	$F_{y.x}$	F.01
Between means	1	234	234	19.8	6.66
Within groups	737	8686	11.8		
Total	738	8920			

The January means can be adjusted directly for differences in initial means. Table XIV indicates the adjustment of January means and calculation of significance of difference among these means.

TABLE XIV

SIGNIFICANCE OF DIFFERENCE AMONG ADJUSTED JANUARY MEANS

Source	Adjusted Means	SE $D_{y.x}$	t.01	D.01	D Y.M
Laggards	22.90				
Non-laggards	21.74	.25	2.59	.65	1.16
General	22.24				

The adjusted January means for the laggards is significantly higher than the non-laggard January means. When initial differences are allowed for, classification as a laggard stimulates significant improvement in the January score. This analysis verifies the findings of Table VII.

TABLE XV

ANALYSIS OF COVARIANCE OF FINAL AND INITIAL ACHIEVEMENT
SCORES FOR LAGGARDS AND NON-LAGGARDS

Source	df	SS y.x	Vest	F y.x	F.05
Between means	1	48	48	4.10	3.85
Within groups	737	8607	11.7		
Total	738	8655			

Table XV presents the analysis of covariance for the initial and final achievement scores. The laggard and non-laggard final scores differ significantly at the .05 level of significance, after they have been adjusted for initial differences.

The final means can be adjusted directly for differences in initial means. Table XVI indicates the adjustment of final means and the calculation of significance of difference among these means.

TABLE XVI
SIGNIFICANCE OF DIFFERENCE AMONG ADJUSTED FINAL MEANS

Source	Adjusted Means	SE D y.x	t.05	D.05	D Y.M.
Laggards	21.97	.23	1.96	.45	.46
Non-laggards	21.51				

The adjusted final means for laggards and non-laggards differ significantly at the .05 level. Classification as a laggard produces improvement in achievement but laggards never do equal non-laggards.

Calculations shown in Tables XV and XVI evidently differ from the calculations indicated in Table VII. However, both calculations indicate significance at the .05 level so that improvement of laggards is evidenced by each. Analysis of covariance increases the precision, as Johnson writes:

This operation makes it possible to increase the precision of an experiment by the elimination of causes of variation in some cases not controlled or controllable by the experimental design.¹

Data revealed only six laggards studied had been previously classed as laggards. This figure represents only 1.62 per cent of all laggards. It is unlikely that reclassification as a laggard has any effect on the

¹Palmer O. Johnson, Statistical Methods in Research, (New York, Prentice-Hall Inc., 1949): p. 216.

statistics presented. Of the 370 laggards studied, twelve had repeated grades in elementary school. Since fewer than five per cent repeated, laggards do not show a history of failure.

Improvement of Laggards by Sex and by Grade. Analysis should reveal answers to the questions: (1) Do female laggards improve more than male laggards? (2) Do Grade XI laggards improve more than Grade X laggards? Table XVII compares the improvement of each group from initial to January report.

TABLE XVII

A COMPARISON OF IMPROVEMENT SCORES FOR FEMALE, MALE,
GRADE X AND GRADE XI LAGGARD STUDENTS
(INITIAL REPORT TO JANUARY REPORT)

		Grade X		Grade XI		Total
		N	Mark	N	Mark	
Male	Total Improvement		32		12	44
	Mean Improvement	50	.64	50	.24	.44
Female	Total Improvement		-29		16	-13
	Mean Improvement	50	-.58	50	.32	-.13
Total	Total Improvement		3		28	31
	Mean Improvement	100	.03	100	.28	.15

Grade X male laggards show an improved mean score of .64, highest of all groups. Grade X female laggards show a decreased mean score of .58. Both Grade XI groups, male and female, improve.

Analysis of variance of the improvement scores is presented in Table XVIII.

TABLE XVIII

ANALYSIS OF VARIANCE OF IMPROVEMENT SCORES (INITIAL TO JANUARY)
OF FEMALE AND MALE LAGGARDS, AND GRADE X AND XI LAGGARDS

Source of Variation	df	SS	MS	F	F.05	F.01
Sex	1	16.19	16.19	1.35	3.89	6.76
Grade	1	3.07	3.07	.25	3.89	6.76
Interaction	1	24.10	24.10	2.00	3.89	6.76
Individuals within Subclasses	196	2341	12			

The null hypothesis must be accepted. There is no sex difference in improvement scores; female laggards do not improve more than male laggards. There is no grade difference in improvement scores; Grade XI laggards do not improve more than Grade X laggards. There is no interaction between sex and grade.

II. DESCRIPTION OF LAGGARDS

Sex. Laggards are compared to the total student population to determine any sex difference in classification. Table XIX indicates male students are classified as laggards more often than female students. This is not surprising, since most studies have shown boys to underachieve more than girls.

Further analysis, summarized in Table XX reveals significant differences between the two schools observed. At School A, there is no apparent sex difference, but at School B, a significantly larger number of boys are classified.

TABLE XIX

ANALYSIS OF SEX DIFFERENCES IN THE CLASSIFICATION OF LAGGARDS

		Male	Female	Total
Laggards	N	179	126	305
	%	58.6	41.4	
Total Population	N	1867	1725	3592
	%	51.8	48.2	
χ^2 = 5.58		P .02 significant		

TABLE XX

A COMPARISON OF SEX DIFFERENCES IN THE CLASSIFICATION
OF LAGGARDS AT TWO CALGARY HIGH SCHOOLS

		School A	School B	Total
Male	N	128	51	179
	%	54.5	72.9	
Female	N	107	19	126
	%	45.5	27.1	
χ^2 =		3.18 not significant	17.8 significant	

Age. Age distribution of laggards is compared to the age distribution of all students in Table XXI. Grade X laggards are older than other Grade X students; the mode is 16 for laggards and 15 for other students. While the difference in Grade XI is not as pronounced, laggards are older than other students. The mode is 17 for laggards and 16-17 for other students. Some selection has taken place in Grade X.

REPORT

ANALYSIS OF THE DATA OBTAINED FROM THE EXPERIMENT

The purpose of this report is to present the results of the experiment and to discuss the factors which influence the rate of reaction.

Time (min)	Volume of gas evolved (ml)	Rate of reaction (ml/min)
0	0	0
10	10	1.0
20	20	1.0
30	30	1.0
40	40	1.0
50	50	1.0
60	60	1.0
70	70	1.0
80	80	1.0
90	90	1.0
100	100	1.0

The results of the experiment show that the rate of reaction is constant throughout the experiment. This is due to the fact that the concentration of the reactants is constant throughout the experiment. The rate of reaction is therefore independent of the concentration of the reactants. This is in agreement with the theory that the rate of reaction is proportional to the concentration of the reactants raised to the power of the order of reaction. In this case, the order of reaction is zero, and the rate of reaction is therefore independent of the concentration of the reactants.

TABLE XXI

ANALYSIS OF THE VARIATION OF THE AGES OF LAGGARDS FROM
THE AGES OF THE TOTAL POPULATION OF CALGARY STUDENTS

		GRADE X					
		14	15	16	17	18	Total
Laggards	N	2	40	74	28	2	146
	%	1.4	27	50.6	19.2	1.4	
Total Population	N	49	864	804	220	43	1980
	%	2.5	43.5	40.6	11.2	2.2	
$\chi^2 = 21.96$		P .01 significant					
		GRADE XI					
		15	16	17	18	19	Total
Laggards	N	2	48	67	22	2	141
	%	1.4	34	47.5	15.7	1.4	
Total Population	N	25	706	696	152	33	1612
	%	1.5	43.8	43.1	9.4	2.2	
$\chi^2 = 9.57$		P .05 significant					

Intellectual Ability. The intelligence quotients (determined by the Otis intelligence test) of laggard and all students are compared in Table XXII. The difference between laggards and all students is clearly insignificant; the mean for laggards is 107.1 and for all students 108.

TABLE XXII

COMPARISON OF THE MEAN INTELLIGENCE QUOTIENTS OF LAGGARDS
AND THE CALGARY STUDENT POPULATION

	Mean	SD	Dm	SEd	CR
Laggards	107.1	9	.9	.47	1.90
Total Population	108	12			

Program of Studies. In analyzing differences in the classification of laggards in various programs of studies, difficulty in segregating Grade X general and academic students was encountered. The analysis is presented in Table XXIII. In Grade X, no significant difference appears in the classification of laggards. However, a significant difference is present in Grade XI; fewer academic students and a larger number of general and technical students are classified as laggards.

TABLE XXIII

ANALYSIS OF THE DISTRIBUTION OF LAGGARD STUDENTS
ACCORDING TO PROGRAM OF STUDIES

GRADE X					
		Academic	Technical	Commercial	Total
Laggards	N	83	21	29	133
	%	62.4	15.8	21.8	100
Total Population	N	1332	262	464	2068
	%	64.5	12.8	22.7	100

$$\chi^2 = 1.08$$

P .50 not significant

GRADE XI						
		Academic	General	Technical	Commercial	Total
Laggards	N	65	34	35	38	172
	%	37.8	19.8	20.4	22	100
Total Population	N	958	285	261	472	1976
	%	48.4	14.4	13.2	24	100

$$\chi^2 = 14.5$$

P .01 significant

Grade Attained. Summary of the analysis of grade distribution of laggards at the two schools is presented in Table XXIV. The 172 Grade XI laggards is a significantly greater number than the 133 Grade X laggards. Grade X's may be treated deferentially on the first report, since it is their first experience in high school.

TABLE XXIV
ANALYSIS OF LAGGARD DISTRIBUTION BY GRADE

		Grade X	Grade XI	Total
Laggards	N	133	172	305
	%	43.5	56.5	
Total Population	N	2068	1976	4044
	%	51	49	
$\chi^2 = 6.75$		P .01 significant		

School Attended. Examination of Table XXV indicates the comparability of laggard distributions for Calgary high schools. School A, having 30.5 per cent of the total population, classified fifty-four per cent of the laggards, while School B, having 28.8 per cent of the total population, only classified 16.5 per cent of the laggards. This is a surprising difference, because the two schools service essentially the same type of student. There is obviously a great differ-

ence in administration of the policy at these two high schools. All other schools appear to implement the policy in the same manner.

TABLE XXV

ANALYSIS OF THE SCHOOL BY SCHOOL DISTRIBUTION
OF LAGGARDS FOR 1959

School		A	B	C	D	E	F	Total
Laggards	N	180	55	24	30	9	35	333
	%	54	16.5	7.2	9	2.7	10.6	
Total	N	1328	1256	485	417	217	652	4355
Population	%	30.5	28.8	11.1	9.6	5	15	
$\chi^2 = 78$ significant								

Drop-out Rate. Laggards drop out of school in significantly larger numbers than the general student. Since laggards do not adapt well to school situations, they are potential drop-outs. Findings are indicated in Table XXVI.

TABLE XXVI

A COMPARISON OF THE DROP-OUT OF LAGGARDS AND
THE GENERAL STUDENT POPULATION

Source of Variations	Percent Drop-out	SE	CR	CR.01
Laggards	35	7.7	2.7	2.58
General	14			

III. IMPROVEMENT OF GRADE XII SCORES

An analysis of Grade XII departmental examination results for the year previous and the fifth year following inception of the laggard policy is presented in Table XXVII.

TABLE XXVII

A COMPARISON OF THE PERCENTAGE OF CALGARY STUDENTS
ACHIEVING VARIOUS STANDINGS ON GRADE XII
DEPARTMENTAL EXAMINATIONS IN 1954 AND 1959

	Honors	Senior Matriculation	Diploma	Failure
1954	6	51	82	18
1959	6	67	89	11
CR	0	7.3	4.7	4.7
CR.01		1.96		

It is obvious that there is no change in the percentage of students making honors pass; six per cent of students writing the departmental examinations made honors in 1954 and in 1959. In 1959, sixty-seven per cent of the students passed with Senior Matriculation standing, a significant improvement from the fifty-one per cent in 1954. In 1959, eighty-nine per cent of the students passed with at least diploma standing, a significant improvement from the eighty-two per cent in 1954. Eighteen per cent failed in 1954, a significantly greater number

than the eleven per cent in 1959. Hence there has been considerable improvement in Grade XII results since the implementation of the laggard policy. It has been previously indicated on page 58 that factors, other than the laggard policy, may have influenced this improvement.

CHAPTER V

SUMMARY OF FINDINGS, IMPLICATIONS AND RECOMMENDED RESEARCH

This chapter is a synthesis following the detailed analysis of the preceding chapter. It highlights the major findings of this study and suggests further research.

I. SUMMARY OF FINDINGS

Since 1954 administrators of Calgary high schools have attempted by use of the Calgary Laggard Policy to rehabilitate students who have ability but fail to put forth an effort. If rehabilitation fails, these students may be excluded from school. In 1959, seven per cent of the total Calgary high school population was classified as laggards, and slightly less than one per cent was excluded. Public response to the laggard policy has been favorable, and it has become accepted as normal procedure in the treatment of unwilling students.

This investigation studied the following main problems posed by the Calgary Laggard Policy: (1) Do students, upon classification and treatment as laggards, improve their academic achievement in comparison with the improvement in achievement of non-laggards? (2) What characteristics describe laggards? The improvements of January and final achievement scores over initial achievement scores for the 370 Grade X and XI laggards from two large Calgary high schools in 1957-58

and 1958-59 were compared with the corresponding improvement scores for an equal number of non-laggards of the same grades, schools, and years. This analysis was checked using analysis of variance and analysis of covariance techniques. Further descriptive characteristics of laggards were compared with those of non-laggards, using tests of significance of difference.

A summary of the findings follows:

1. (a) In comparison with non-laggards the achievement of laggards improved significantly from the initial to the January report. While there was improvement from the initial to the final report it was not as significant as that from the initial to the January report.
(b) The achievement of laggards did not improve to the point of equalling that of non-laggards in the period under study.
2. Grade XI laggards did not improve their achievement more than did Grade X laggards.
3. Female laggards did not improve their achievement more than did male laggards.
4. (a) Male students were classified as laggards more frequently than were female students. The schools varied in their treatment of sexes.
(b) Laggard students were older than the Calgary high school population, especially in Grade X.
(c) Laggard students did not differ from the Calgary

high school population in intelligence.

- (d) A smaller proportion of academic students and a larger proportion of general and technical students were classified as laggards.
 - (e) A smaller proportion of Grade X than Grade XI students were classified as laggards.
 - (f) The ratio of laggards to non-laggards varied from school to school.
 - (g) The drop-out rate of laggards was greater than the drop-out rate for the Calgary high school population.
5. The standing of Calgary students on Grade XII departmental examinations was significantly improved from 1954.to 1959. There is no clear evidence that this improvement was caused by inception of the laggard policy.

II. IMPLICATIONS

This study is limited in scope: it is restricted to two grades, to two years, to two schools and to those students classified as laggards on the first report. With these limitations recognized, the implications of these findings merit consideration.

There is strong evidence that laggards do improve their achievement, indicating the beneficial effect of the laggard policy. While the policy may cause a laggard to become aware of his shortcomings, rehabilitation is only partial. Although

laggards have the same intellectual ability as non-laggards, their achievement does not improve sufficiently, in the space of one year, to equal that of non-laggards.

Related literature suggests that lack of study skills characterizes the probation (laggard) student. Planned systematic teaching of study skills should be an objective for the elementary school. Poor study habits become ingrained, and a remedial program is necessary in the high school, if laggards are to continue to improve. Poor attitudes require prolonged counselling.

Use of the "3D" system of classification does not affect all laggards and some students may lag their expected achievement by more than three standard deviations without receiving help. These more intelligent students might, with assistance, become leaders of our society.

Male students are more often classified as laggards than female students. Is there some sex bias inherent in our school system? Do male students exhibit more hostility to school? Do subject matter and teaching methods discriminate against male students?

The drop-out rate of laggards exceeds the drop-out rate for the Calgary high school student population. This appears to indicate dissatisfaction or frustration in school. Related literature suggests that laggards may develop responsibility and pride in work through a curriculum that builds on individual student interests. However, exclusion from school may be the preferred treatment for some of these unwilling students.

III. RECOMMENDED RESEARCH

Although research in this study was limited, many areas for research were exposed which appear profitable.

1. Critical reading in the various content areas should be studied to reveal reading deficiency of laggards.

2. The present study was essentially cross-sectional.

A longitudinal study of laggards is needed:

- (a) to reveal where difficulty with academic study begins.

- (b) to determine post school success of laggards, and factors contributing to their success or failure.

- (c) to determine percentage of laggards remaining in school, and the number graduating from school and university.

3. Factors discriminating against male students should be determined and remedied.

4. Problem check lists should be administered to laggards, to determine personal factors contributing to academic failure.

5. Research into methods of classification of laggards, and procedures for rehabilitation is required.

6. Study in exclusion policy is required to prevent waste of time and money, and to present opportunities of a compensating nature for the excluded student.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

- Bond, Eva, Research in the 3 R's, Edited by C. W. Hunnicutt and W. J. Iverson, New York: Harper and Brothers, 1958.
- Heaton, K.L. and Weedon, V., The Failing Student, Chicago, University Press, 1939.
- Johnson, Palmer O., Statistical Methods in Research, New York, Prentice-Hall Inc., 1949.
- Walker, H. W. and Lev, J., Statistical Inference, Henry Holt and Company, New York, 1953.

B. PERIODICALS

- Andrew, D. C., "Relationship Between Academic Load and Scholastic Success of Deficient Students", Personnel and Guidance Journal, XXXIV (December, 1956.)
- Artley, A. G., "Critical Reading in the Content Areas", Elementary English, XXXVI (February, 1954).
- Barbe, W. G., "Attempts to Solve Reading Problems", School and Society, LXXXV (June 8, 1957).
- Betts, E. A., "Research on Reading as a Thinking Process", Journal of Educational Research, L (September, 1956).
- Blake, W. S. Jr., "Does Compulsory Training Help Students on Probation", Personnel and Guidance Journal, XXXIII (October, 1954).
- Boughter, V. R., "Probation Suspension and Related Problems", North Central Association Quarterly, XXXI (January, 1957), No. 3.
- Brainard, E., "Homework and Home Study Conditions", Clearing House, XXXIII (November, 1958).

BIBLIOGRAPHY (continued)

- Brown, Wm. H., "The Problems of Probation and Honor Students", Education Research Bulletin, XXXII (January 14, 1953).
- Brown, W. and Holtzman, W. H., "Use of the Survey of Study Habits and Attitudes for Counselling Students", Personnel and Guidance Journal, XXXIV (December, 1956).
- Buschman, Wm. O., "Report of Probation Students", School and Society, LXXVI (October, 1952).
- Calhoun, S. R., "The Effect of Counselling on a Group of Underachievers", School Review, LXIV (October, 1956).
- Chicago Conference on Reading, Improving Reading in all Curriculum Areas, Compiled and Edited by W.S. Gray, (Supplementary Education Monographs, University of Chicago Press, No. 76, November 1952).
- Corey, E. M., "A Class for Chronic Failures", School Review, LVI (March, 1958).
- Cutts, N. and Moseley, N., "What you Can Do to Help the Disorderly Underachiever", Education Digest, XXIV (March, 1959).
- Eblin, L. P., "A Comparison of Scholastic Point Systems", College and University, XXX (October, 1954).
- Eurich, A. C., "Improvement in School During Probationary Period", School and Society, XXXV (January, 1932).
- Fay, L., "What Research Has to Say About Reading in the Content Areas", The Reading Teacher, VIII (December, 1954).
- Hackett, H. R., "Evaluation of a Program of Counseling Students on Probation", Personnel and Guidance Journal (XXXIII (May, 1955)).
- Hadley, L. S., "New College Students Lack Study Techniques", School and Society, LXXXV (November 23, 1957).

BIBLIOGRAPHY (continued)

- Havighurst, R. J., "What To Do About the Tough Hostile Boy," Phi Delta Kappan, XL (December, 1958).
- Hountras, P. T., "Factors Relating to Academic Probation Among Foreign Graduate Students," School and Society, LXXXV (October, 1957).
- Huber, L. W., "Compulsory Attendance and Indifferent Pupils," Education Digest, XXII (May, 1957).
- Huettner, O. F. and Hosmanek, J. J., "Atypical Attitudes in Typical Schools," Clearing House, XXXII (November, 1957).
- Hunt, P. H., "Job-upgrading: Rehabilitation for the Drop-out," Phi Delta Kappan, XL (February, 1959).
- Husband, K. L. and Shores, H. J., "Measurement of Reading for Problem Solving: A Critical Review of the Literature," Journal of Educational Research, (February, 1950).
- Jacobson, P. B., "The Effect of Work Type Reading Instruction Given in the Ninth Grade," School Review, XL (April, 1952).
- Jones, E. S., "The Probation Student: What He Is Like and What Can Be Done About It," Journal of Educational Research, XLIX (October, 1955).
- Josephine, Sister, "Study Skills Performance of Gifted Pupils," School and Society, LXXXVI (May, 1958).
- Kaye, Abramowitz and Olicker, "The Resistant Student," North American Secondary School Principal's Bulletin, XLII (October, 1958).
- Kvaraceus, C. V., "The Behavioral Deviate in Secondary School Culture," Phi Delta Kappan, XL (November, 1958).

BIBLIOGRAPHY (continued)

- McCullough, C. M., "What Does Research Reveal About Practices in Teaching Reading", English Journal, XLVI (November, 1957).
- McDonald, A. S., "Influence of a College Reading Improvement Program on Academic Performance", Journal of Educational Psychology, XLVIII (March, 1957).
- Merrill, Reed M., "An Evaluative Study of Probation Students Academic Performance in a University", Journal of Educational Research, XLVIII (September, 1954).
- Merrill, Reed M. and Osborne, H. W., "Academic Overload and Scholastic Success", Personnel and Guidance Journal, XXXVII (March, 1959).
- Neild, J. W., "What Can We Expect of Probationers?" School and Society, XXXVI (October, 1932).
- Petty, W., "Critical Reading in the Primary Grades", Elementary English, XXXIII (May, 1956).
- Piekarz, J., "Getting Meaning from Reading", Elementary English, LVI (March, 1956).
- Rafferty, R. L., "The Cult of the Slob", Phi Delta Kappan, XL (November, 1958).
- Reavis, W. C., "The Administration of Failing Pupils in the High Schools of Seattle, Washington", School Review, XXXIII (January, 1925).
- Shaw, M. C. and Brown, D. J., "Scholastic Underachievement of Bright College Students", Personnel and Guidance Journal, XXXVI (October, 1957).
- Shaw, M. C. and Grubb, J., "Hostility and Able High School Underachievers", Journal of Counselling and Psychiatry, V (Winter, 1958).
- Sheedy, J. W. and Dressel, P. L., "Effect of a Final Warning Extension on Academic Performance", College and University, XXXI (October, 1955).

BIBLIOGRAPHY (continued)

- Silverman, H. L., "Educational 'Unadaptives' and the Schools", National Association of Secondary School Principals' Bulletin, XLII (October, 1958).
- Sochor, E. E., "Special Reading Skills are Needed in Social Studies, Science and Arithmetic", The Reading Teacher, VI (March, 1953).
- Stokes, M. S., "A Device for the Improvement of Study Habits", Peabody Journal of Education, XXXVI (November, 1958).
- Strabel, E., "What About Warned Students?", School and Society, XLII (October, 1935).
- Strang, R., "An Introspective Approach to Study Problems", Journal of Educational Research, LI (December, 1957).
- "Student Behavior Policy", Clearing House, XXXIII (February, 1959) No. 6.
- Taba H., "Problems in Developing Critical Thinking", Progressive Education, XXVIII (November, 1950).
- Tesseneer, R. A. and Tesseneer, L. M., "Review of Literature on School Drop-outs", National Association of Secondary School Principals' Bulletin, XLII (May, 1958).
- Traxler, A. E., "A Study of the California Test of Mental Maturity: Advanced Battery", Journal of Educational Research, XXXII (January, 1939).
- Tufvander, E. A. and Zintz, M. V., "A Follow-Up Study of Pupils with Reading Difficulties", Elementary School Journal, LVIII (December, 1957).
- Turner, C. S., "Remedial Reading Pays Dividends in the Junior High School", English Journal, XLVIII (March, 1959).
- Whipple, G., "Controversial Issues Relating to Reading in the Curricular Areas", The Reading Teacher, VIII (April, 1955).

BIBLIOGRAPHY (continued)

- Whitmer, C. A., "A Study of the Scholastic Progress of College Probationers", Journal of Applied Psychology, XVII (February, 1933).
- Willey, D. S. and Thompson, C. W., "Effective Reading and Grade Point Improvement with College Freshmen", School and Society, LXXXIII (April 14, 1956).
- Williams, R. L., "The Administration of Academic Discipline in 337 American Colleges and Universities", American Association of College Registrar's Bulletin, (July, 1938).
- Woellner, R. C., "Why Don't Students Do Their Best" School Review, (LXI (1953)).

C. CORRESPONDENCE

- Warren, R. A., Superintendent of the Calgary School District, Special Bulletin to High School Students, November 6, 1956.

APPENDIX A

CAPACITY - ACHIEVEMENT EXPECTANCY CHART

Crescent Heights 1958

Probation: Achievement score less than 0.25, underachievement over ten points deviation by the T -score scale.

Laggard: Achievement score less than 0.25, underachievement over fifteen points deviation by the T - score scale.

Ability Scores			Scales		Achievement Scores H-4, A-3, B-2, C-1, D-0						Letter Grade
Convert	Laycock	Otis	Stanine	%ile	T-Score	36	32	28	24	20	
	142	135			79	1.00	36	32	28	24	20
		134							24	20	
	138	133		99	74	.97	35	31	27	23	
	137	132			73						H
	136		9		72	.94	34	30			19
	135	131			71	.92	33	29	26	22	4%
	134	130	4%		70						
	133	129		97	69	.89	32	28	25	21	18
	132				68	.86	31		24		17
	131	128			67	.83	30	27	23	20	
		127		95	66	.81	29	26			16
	130	126	8		65						f
	{129										
	{128	125	7%		64	.78	28	25	22	19	A
118	127	124		90	63	.75	27	24	21	18	15
	126	123			62	.72	26	23	20	17	18%
	{125										
	{124	122			61	.70	25	22			14
113	123	121	7	85	60	.67	24	21	19	16	-
	122	120			59						
	121	119	12%	80	58	.64	23		18	15	13
111	120	118		75	57	.61	22	20	17		12
	119	117			56	.58	21	19		14	
109	118	116	6	70	55						f
108	{117	115		65	54	.56	20	18	16		11
	{116		17%								
	115	114		60	53	.53	19	17	15	13	
	114	113			52						
104	113	112		55	51						
103	112	111	5	50	50	.50	18	16	14	12	10
	111	110		45	49	.47	17	15	13	11	B
	{110		20%								
	{109	109			48	.44	16	14			9
101	108	108		40	47	.42	15	13	12	10	52%
100	{107	107		35	46						-
	{106										
	105	106	4		45	.39	14	12	11	9	8
98	104	105		30	44						
			17%								
97	{103										
	{102	104		25	43	.36	13		10		7
	101	103			42						
	100	102		20	41	.33	12	11	9	8	
	{99										
	{98	101	3		40	.31	11	10			6
		{100									f
	97	99	12%	15	39						
93	96,95	98			38						
	93,94	97		10	37	.28	10	9	8	7	
	92	96			36	.25	9	8	7	6	5
	91	95	2		35						C
	90	94,93			34	.22	8	7	6	5	23%
	89	92	7%	5	33	.19	7	6			4
5	88	91			32	.17	6	5	5	4	-
	87	90		3	31						
	86	89,88			30	.14	5		4	3	3
	85	87	1		29	.11	4	4	3		2
	84	86			28	.08	3	3	2	2	
	83		4%		27						
	82	85		1	26	.06	2	2			1
	81	84			25						D
	80	83			24	.03	1	1	1	1	2%
	75	82			21	.00	0	0	0	0	0

APPENDIX B

C.H.H.S.

SOME SUGGESTIONS CONCERNING EFFECTIVE STUDY

- I Objective — To prepare for life now in order to be what you want to be and do what you want to do.
- II Attitude — You must want to learn and thus gain your objective.
- III Procedure — Regular study - Grade X - $1\frac{1}{2}$ hours daily, XI and XII - 2 hours daily.
- IV Conditions of Study:
 - (a) Time — a set time to begin.
 - (b) Place — a proper location - quiet.
 - (c) Table, proper light, books and equipment.
 - (d) No interruptions.
- V Schedule — every subject allotted a period of study.
- VI Concentration — work while you work.
- VII Mastery is essential — (fix facts in your mind.
(learn skills - Science & Math. questions, shorthand, Typing, drafting etc.
- VIII Study is: — (Review - of facts, methods, skills, etc.
(Preparation of new material.
- IX Study with pen or pencil and paper. Mere reading is insufficient. Make notes, work with problems, draw diagrams, make charts. Learn to summarize.
- X When you finish your study session ask yourself how much you have accomplished.

PLEASE NOTE

- 1. Pay careful attention in class and have your equipment with you.
- 2. Do all your assignments yourself. Copying is useless.
- 3. It is easier to keep up than to catch up. Don't get behind.
- 4. If you miss a study session - double time next session.
- 5. Continuous review is necessary in every subject. It is what you retain which determines your success.
- 6. You can fool yourself as well as your parents by merely going through the motions of study. You can learn a lot in a short time if you concentrate.
- 7. If your background is weak in any subject see your subject teacher for advice.
- 8. Get help from the teacher on specific problems. Don't delay.
- 9. The slower you are the more you must study. The cleverer you are the less study you need to do, but, remember that the high I.Q. student can and should accomplish a great deal. There are scholarships for superior students and great rewards ahead in life for systematic, conscientious workers.
- 10. It is your education and future. Neither your parents nor your teachers can do the learning for you.

APPENDIX C

CRESCENT HEIGHTS HIGH SCHOOL

Calgary, Alberta,

195

Dear Mr. and Mrs. _____:

Miss
Mrs.

Re: _____ Room _____ Grade _____ H.R. Teacher Mr. _____

_____ 's school work appears to be below _____ capacity.

received _____ B's, _____ C's, _____ D's on the last report. If this record is not improved, failure in _____ is likely to result.

This record demands immediate attention. _____ should be prepared to do, during each of five sessions per week, _____ hours of concentrated home study.

We suggest that each evening _____ should spend the time as follows:

1. Do the assignments requested.
2. Spend the remainder of the study period reviewing previous work and preparing for tests.

Conscientious effort is essential to success. Help is available on request.

Teachers' report on conduct is: _____

Special Comments: _____

The Counsellor and the Home Room Teacher may be phoned at CR-7-6275, or the Principal, Mr. _____ at CR-7-1582.

Yours truly,

Kindly return this sheet, completed as soon as possible, to the counsellor. If you desire an interview please put a check mark in this space. _____

Please state what steps you are taking to ensure improved results and make any further comments. _____

Date _____ Parents' Signatures _____

Dear Mr. and Mrs.

By this date you will have received _____ school report on work up to November and no doubt will have observed that he received _____ H's, _____ A's _____ B's, _____ C's, _____ D's. Judging from his past record and his native ability we estimate that he should be able to do at least _____ work.

Owing to the low average on this report _____ has been placed on the school probation list. Periodically his progress, conduct and attitude in class will be checked by the teachers having personal contact with him. The school staff is doing everything they can to bring about an improvement in his work. We ask for the further co-operation of the home in encouragement, in supervision of home study and in any other way that may occur to you to help him to improve attitude, study habits and achievement. If before the second report, his work does not improve, it may be necessary for his name to be referred to the administration for inclusion on the School Board list for possible exclusion.

We ask that you regard this matter as serious, demanding immediate attention. _____ should do an adequate amount of concentrated home study per night for five nights per week (for Grade X, a minimum of $1\frac{1}{2}$ hours and for Grades XI, and XII a minimum of 2 hours per night.) We suggest that the time be spent on both teacher assignments and study of previous work and preparation for tests. For your information we are enclosing some suggestions concerning effective study. Conscientious effort is essential to success.

The counsellors would welcome an opportunity to discuss this whole problem with you. They may be contacted by phoning 70145, 71111 or 71582.

Yours truly,

_____ Counsellor.

Kindly return this sheet completed as soon as possible to the counsellor. Please state what steps you are taking to ensure improved results and make any further comments.

Parents' Signatures _____

ate _____

Guidance Department,
Crescent Heights High School.

Dear Mr. and Mrs.

By this date you will have received _____ school report on work up to November and no doubt will have observed that she received _____ H's, _____ A's, _____, _____ B's, _____ C's, _____ D's. Judging from her past record and her native ability we estimate that she should be able to do at least _____ work.

Owing to the low average on this report _____ has been placed on the school probation list. Periodically her progress, conduct and attitude in class will be checked by the teachers having personal contact with her. The school staff is doing everything they can to bring about an improvement in her work. We ask for the further co-operation of the home in encouragement, in supervision of home study and in any other way that may occur to you to help her to improve attitude, study habits and achievement. If before the second report, her work does not improve, it may be necessary for her name to be referred to the administration for inclusion on the School Board list for possible exclusion.

We ask that you regard this matter as serious, demanding immediate attention. _____ should do an adequate amount of concentrated home study per night for five nights per week, (for Grade X a minimum of $1\frac{1}{2}$ hours and for Grade XI and XII a minimum of two hours per night.) We suggest that the time be spent on both teacher assignments and study of previous work and preparation for tests. For your information we are enclosing some suggestions concerning effective study. Conscientious effort is essential to success.

The counsellors would welcome an opportunity to discuss this whole problem with you. They may be contacted by phoning 70145, 71111 or 71582.

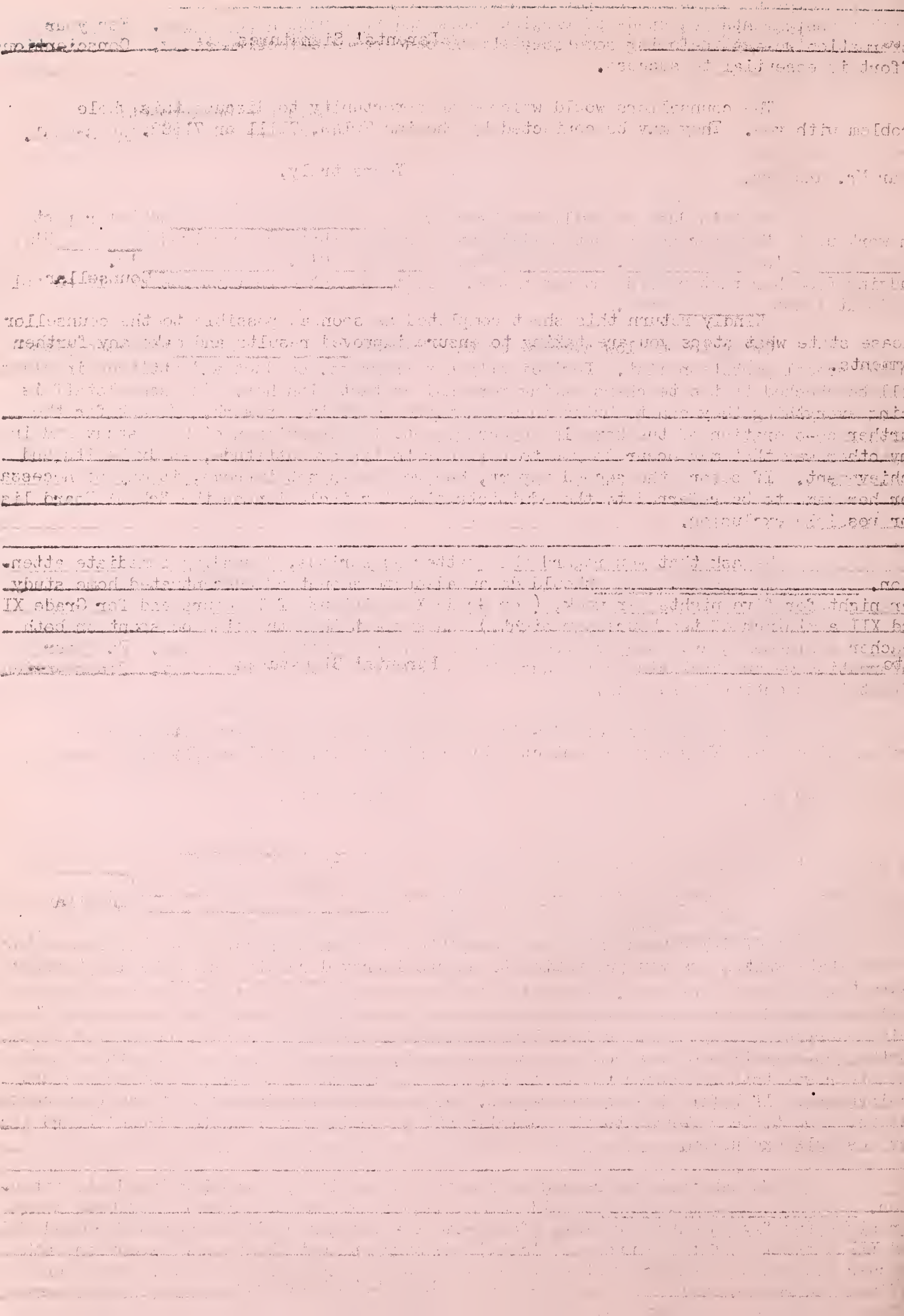
Yours truly,

Counsellor

Kindly return this sheet completed as soon as possible to the counsellor. Please state what steps you are taking to ensure improved results and make any further comments.

Date _____

Parents' Signatures _____



Guidance Department,
Crescent Heights High School,

You have received _____ report on his-her school
work up to November. He-she received _____ A's _____ B's _____ C's _____ D's on this report.
Judging from his past record and his native ability I believe that _____ should
at least _____ work.

Owing to the low average on this report, _____
has been placed on our probation list. Periodically we will check his-her progress, conduct
and attitude in each class. The staff of the school is doing everything it can to help him-
er to improve. We ask for the further co-operation of the home in encouragement, supervision
home study and any other way that may occur to you to help _____ to
improve attitude, study habits and achievement. However, if before the next report, his-her
work does not improve, we may find it necessary to place his-her name on the School Board
list for exclusion.

Please regard this report as serious, demanding immediate attention.
He-she should do an adequate amount of concentrated home study per night for five nights
per week, (for grade X - $1\frac{1}{2}$ hours; for grade XI and XII - 2 hours minimum per night). We
suggest that the time be spent on both teacher assignments and study of previous work and
preparation for tests. For your information we are enclosing some suggestions concerning
effective study. Conscientious effort is essential to success.

If you wish more information and help with this problem, please
phone 70145, 71111 or 71582 and we will arrange an interview with you.

Yours truly,

Counsellor.

Kindly return this sheet, completed as soon as possible to the
counsellor. Please state what steps you are taking to ensure improved results and make
further comments. _____

Parents' Signatures

APPENDIX D

CALGARY SCHOOL BOARD

March, 1957.

Policy for Laggard Students in Calgary

The following is a brief statement of the policy, its background, and its application.

Legal Aspects

The legal aspects are covered by Sections 179 and 366 of the School Act for Alberta, together with a Calgary School Board regulation which defines the duties of students. Section 179 gives the Board the power to make regulations for the management of the school and to expel from school pupils who are guilty of habitual neglect of duty. In the School Board Regulations it is stated as a duty of a student that he shall be diligent in the pursuit of his studies. Habitual neglect of duty may therefore be defined as failure to be diligent in study.

Background

About 1953, the high school principals raised the question of the pupil who, though not an overt discipline problem, nevertheless, continually neglects to hand in assignments, essays, etc. It was noted that this pupil was generally of good ability but quite indifferent to work. It was felt that the attitude of such pupils in the classroom lowered the school tone substantially and interfered with the right and the willingness of other pupils to work. A recommendation was made, therefore, asking the Board to support the principals in applying the sections of the School Act which dealt with pupil neglect of duty.

Policy

The attached statement covers this.

Results

The total number of students excluded in any one year under this policy is approximately one per cent of the total high school enrolment. The high school administrators and teaching staff feel very definitely that this policy has improved the morale of the student body. By way of objective evidence it has been demonstrated that the achievement scores on the Grade XII examinations have risen considerably over the past three or four years.

R. Warren,

Superintendent of Schools.

THE HISTORY OF THE

1790

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

CALGARY SCHOOL BOARD

Amended December, 1957.

Re Students Who Put Forth No Effort

A high school student is entitled to education at public expense provided he puts forth a serious effort to profit from that education. In 1955, the per capita cost per senior high school pupil in Calgary was \$344.29 and there was difficulty in finding accommodation for all who sought admission. The public cannot afford to provide such service to pupils who take an indifferent attitude towards their responsibility in providing a good return on the investment.

In implementing the above policy, the following statements will apply:

1. Our concern is not so much with the pupils who try hard but are unable to succeed as with those who simply fail to put forth an effort.
2. Such pupils can be identified rather early and should be referred to guidance counsellors for consideration. It is expected that they should be known by the first reporting period, that is, on or before November 15th.
3. Parents should be made aware of the problem as soon as possible after this date, either by letter or personal interview.
4. The principal should advise the parent on or before January 15th that the pupil will not be permitted to remain in school after February 14th unless his effort has improved.
5. On February 10th a letter shall go from the principal to the parent advising of the enforced withdrawal of the pupil as of February 14th.
6. At the same time the principal shall send to the Superintendent a list of all pupils who were asked to withdraw, together with data pertinent to their withdrawal.
7. All border-line cases given the privilege of continuing after February 14th shall be considered as probationary students subject to later enforced withdrawal if there is a falling off of effort.

R. Warren,

Superintendent of Schools.

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

100-10000-10000

B29786